(FILE 'HOME' ENTERED AT 14:35:54 ON 21 MAR 2006)

FILE 'CAPLUS' ENTERED AT 14:36:49 ON 21 MAR 2006

		E	MADHAVI DODDABELE/IN,AU
L1	29	S	E1-6
		E	KAGAN DANIEL/IN,AU
L2	7	S	E2-6
L3	33	S	L1 OR L2
L4	30485	S	CYCLODEXTRIN
L5	2	S	L3 AND L4
L6	29565	S	CAROTENOID
L7	41440	S	CAROTENE
L8	64	S	LUTEINE
L9	5674	S	LUTEIN
L10	5730	S	L8 OR L9
L11	4830	S	LYCOPENE
L12	4155	S	ZEAXANTHIN
L13	51798	S	L6 OR L7 OR L10 OR L12
L14	126	S	L13 AND L4
L15	823417	S	OIL
L16	41	S	L14 AND L15
L17	139697	S	SPRAY
L18	50060	S	FREEZE
L19	20801	S	LYOPHIL?
L20	67659	S	L18 OR L19
L21	12	S	L16 AND (L17 OR L20)
L22	29	S	L16 NOT L21
L23	85	S	L14 NOT (L21 OR L22)

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:103653 CAPLUS
DOCUMENT NUMBER: 144:156235
TITLE: Oral care formulations comprising highly bioavailable coenzyme Q10-**cyclodextrin** complex
INVENTOR(S): **Madhavi, Doddabele L.**; **Kagan, Daniel I.**
PATENT ASSIGNEE(S): Bioactives, LLC, USA
SOURCE: U.S. Pat. Appl. Publ., 5 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006024247	A1	20060202	US 2005-190094	20050726
WO 2006015164	A1	20060209	WO 2005-US26882	20050727

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-591970P P 20040728
US 2005-190094 A 20050726

AB The present invention incorporates of a highly bioavailable coenzyme Q-10/**cyclodextrin** inclusion complex into oral care products, such as, toothpaste, mouth wash, chewing gum, breath mint, mouth spray, gels, and lozenges. The inclusion complex also is suitable for devices, such as dental loops, for delivering coenzyme Q-10 to the periodontium by direct phys. contact. The inclusion complex is water dispersible or water soluble, stable in the presence of components of the formulation, and is highly bioavailable to the cells in the oral cavity.

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:473124 CAPLUS
DOCUMENT NUMBER: 141:42908
TITLE: Coated carotenoid **cyclodextrin** complexes
INVENTOR(S): Reuscher, Helmut; **Kagan, Daniel I.**; **Madhavi, Doddabele L.**
PATENT ASSIGNEE(S): Bioactives LLC, USA; Wacker Biochem Corp.
SOURCE: U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004109920	A1	20040610	US 2002-309999	20021204

PRIORITY APPLN. INFO.: US 2002-309999 20021204

AB Coated **cyclodextrin** and carotenoid complexes are stable against oxidation and exhibit higher biouptake than oil-based, lipophile based, and micellar carotenoid compns. The coating may be an oil, or a naturally occurring, optionally derivatized polymer or a pharmaceutically acceptable synthetic polymer. A lutein-γ- **cyclodextrin** complex was prepared and coated with soy oil.

L21 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:100639 CAPLUS
DOCUMENT NUMBER: 144:176935
TITLE: Cosmetic preparation containing compounds for intensifying tanning of the skin
INVENTOR(S): Wolber, Rainer; Tom Dieck, Karen; Scherner, Cathrin; Schlenz, Kathrin; Kruse, Inge
PATENT ASSIGNEE(S): Beiersdorf A.-G., Germany
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006010661	A1	20060202	WO 2005-EP52493	20050601
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
DE 102004036092	A1	20060216	DE 2004-102004036092	20040724
PRIORITY APPLN. INFO.:			DE 2004-102004036092A	20040724

AB The invention relates to agents that are to be applied to the skin or hair and contain compds. for intensifying tanning of the skin and increasing melanin synthesis in skin or hair. The invention particularly relates to cosmetic or dermatol. prepns. Using said prepns. results in inducing and intensifying the tanning mechanisms of the skin, intensifying the hair color, and thus also increasing intrinsic protection of the skin or hair. Thus a PIT emulsion contained (weight/weight%): glycerin monostearate 0.50; polyethylene(30)cetylstearyl ester 5.00; cetyl alc. 2.50; diethylhexyl butamidotriazone 1.00; ethylhexyl triazone 4.00; phenylbenzimidazole sulfonic acid 0.50; titanium dioxide 0.50; zinc oxide 2.00; butylene glycol dicaprylate/dicaprate 5.00; phenylmethyl polysiloxane 2.00; PVP hexadecene copolymer 0.50; glycerin 3.00; tocopherol acetate 0.50; (4E, 8E, 12E, 16E)-3,6,11,15-tetrahydroxy-18-(hydroxymethyl)-2,4,6,10,14,16,20-heptamethyldocosa-4,8,12,16-tetraenoic acid 0.05; alpha-glucosylrutin 0.10; ethanol 3.00; preservative, perfume q.s.; water to 100.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:735830 CAPLUS
TITLE: Flavored food-grade microemulsions
AUTHOR(S): Naouli, Nabil; Rosano, Henri L.
CORPORATE SOURCE: Chemistry, City College and the Graduate Center of the City University of New York, New York, NY, 10031, USA
SOURCE: Abstracts of Papers, 230th ACS National Meeting, Washington, DC, United States, Aug. 28-Sept. 1, 2005 (2005), AGFD-172. American Chemical Society: Washington, D. C.
CODEN: 69HFCL
DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)
LANGUAGE: English

AB Flavor encapsulation poses unique challenges within the field of microencapsulation. Flavor is a complex mixture of individual chems., including the critical volatile or -aromatic' compds. that define a given flavor. These chems. also determine the flavor's organoleptic and phys. properties and this severely constrains preparation protocols. Of established encapsulation methods--**spray** drying, melt injection, beta-**cyclodextrin** complexation, and microemulsification--the last has been little used in food systems, as ingredients known to form microemulsions of the desired degree of dilution are usually either not GRAS(Generally Recognized As Safe) or bitter to the taste. Utilizing new formulation technol., we succeeded in forming concentrated O/W microemulsions of orange or lemon **oil** made with GRAS emulsifiers that may be delivered by aqueous phases. Our method of preparation involved determination of (1) the precise HLB of the flavored **oil** at the water/**oil**

interface, using the titration method; (2) the optimum length of the hydrophobic chain of the emulsifier that will allow the bending of the interface; and (3) the optimum amount of emulsifier for a given volume of the dispersed phase that will impede the formation of gel or macrocrystal structures (lamellae or rods). These transparent systems, characterized by dispersed-phase droplets measuring 10-40 nm in diameter and high solubilization capacities, make excellent hosts for guest mols., including nutraceuticals. Their capacity to deliver such non-soluble nutraceuticals as lutein, phytosterols, and Vitamins E, D, and K is particularly promising.

L21 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:564598 CAPLUS
DOCUMENT NUMBER: 143:77319
TITLE: Continuous multi-microencapsulation process for improving the stability and storage life of biologically active ingredients in foods, cosmetics and drugs
INVENTOR(S): Casana Giner, Victor; Gimeno Sierra, Miguel; Gimeno Sierra, Barbara; Moser, Martha
PATENT ASSIGNEE(S): GAT Formulation G.m.b.H., Austria
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Spanish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005058476	A1	20050630	WO 2004-ES562	20041217
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
ES 2235642	A1	20050701	ES 2003-2998	20031218
PRIORITY APPLN. INFO.:			ES 2003-2998 A	20031218

AB Microcapsules are obtained in a continuous water-in-oil-in-water microencapsulation process through in situ and interfacial polymerization of the emulsion. A formulation comprises a continuous water phase having a dispersion of microcapsules which contain oil drops and in the inside of each oil phase drop (containing optionally oil -soluble materials) there is a dispersion of water, or aqueous extract or water-dispersible material or water-soluble material. The oil drops are encapsulated with a polymerizable material of natural origin. Such microcapsules are appropriate for spray-drying, to be used as dry powder, lyophilized, self-emulsifiable powder, gel, cream, and any liquid form. The active compds. included in the microcapsules are beneficial to health and other biol. purposes. Such formulations are appropriate for incorporation in any class of food, especially for the production of nutraceuticals, as well as cosmetic products (such as rejuvenescence creams, anti-wrinkle creams, gels, bath and shower consumable products and sprays). The prepns. are adequate to stabilize compds. added to food, media for cultivating microbes and nutraceuticals, especially those which are easily degradable or oxidizable.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:435384 CAPLUS
DOCUMENT NUMBER: 143:285229
TITLE: Study on technique of microencapsulation of lycopene
AUTHOR(S): Zuo, Airen; Fan, Qingsheng; Liu, Yan; Zhou, Jie
CORPORATE SOURCE: The Key Laboratory of Food Science of Ministry of Education, Sino-Germany Joint Research Institute, Nanchang, Jiangxi Province, 330047, Peop. Rep. China
SOURCE: Shipin Kexue (Beijing, China) (2004), 25(4), 35-39
CODEN: SPKHD5; ISSN: 1002-6630
PUBLISHER: Zhongguo Shipin Zazhishe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Spray drying for microencapsulation in a wall material system consisting of compds. such as gelation and sucrose and mass detection for lycopene in microencapsulation were outlined. The studies showed that the stability of lycopene increased by microencapsulation. When Et acetate was used as the oil phase, the order of formulation of wall material for microencapsulation was glutin + sucrose (3:17), glutin 25% + β- cyclodextrin 30% + sucrose 30% + defatted milk powder 15%, glutin 25% + maltodextrin 30% + sucrose 30% + defatted milk powder 15%, soybean hydrolytic protein + sucrose (6:14). The addition of antioxidants (sodium erythorbate) was important for the stability of lycopene. The good microencapsulated products of lycopene were salmon pink, with the well water-solubility, fluidity and stability.

L21 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:274649 CAPLUS
DOCUMENT NUMBER: 140:338301
TITLE: Health milk beverages
INVENTOR(S): Yan, Huaiwei; Yi, Min; Yan, Huaipu; Yan, Huaijin; Yan, Huaiqi
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 23 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1390466	A	20030115	CN 2002-133531	20020726
PRIORITY APPLN. INFO.:			CN 2002-133531	20020726

AB The title milk beverages contain composite vitamins, composite trace elements (Fe, Zn, Cu), antiseptic composite (lysozyme, garlic oil , cyclodextrin), composite nucleic acids (AMP, GMP, IMP, inosine, DAMP, DGMP, UMP, CMP, DCMP, DTMP), oil, composite hydrolase (lactase, lipase, and caseinase), and full-fat liquid milk or milk powder. The process comprises (1) mixing the raw material of the vitamins, grinding in a rustless steel mortar; mixing FeSO4, ZnSO4 and CuSO4, grinding; (3) mixing the cyclodextrin, lysozyme and garlic oil, grinding, drying at below 50°; (4) mixing the raw material of nucleic acids at 50-100 rpm for 5-10 min; (5) mixing the zhugecai oil with sunflower oil, soybean oil , maize oil, peanut oil, cotton oil or safflower oil; mixing the hydrolases for lactose, fat and casein; (7) refrigerating fresh milk at below 10° for not more than 24 h, sterilizing, adding 0.003-0.5% of composite hydrolase, enzymolyzing at 50-100 rpm for 1-2 h; (8) concentrating the liquid milk till its concentration is above 40%, and spray drying till the water content is below 3%; and (9) mixing the components in a sterile room to obtain the product.

L21 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:855813 CAPLUS
DOCUMENT NUMBER: 139:341715
TITLE: Use of compositions containing petasin -containing, petasin-depleted or petasin-free petasite extracts as specific COX-2 inhibitors
INVENTOR(S): Rittinghausen, Reiner
PATENT ASSIGNEE(S): Weber & Weber G.m.b.H. & Co. KG, Germany
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003088985	A2	20031030	WO 2003-EP3756	20030411
WO 2003088985	A3	20040226		
WO 2003088985	C1	20040527		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,

FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10217939	A1	20031113	DE 2002-10217939	20020422
AU 2003233964	A1	20031103	AU 2003-233964	20030411
EP 1499334	A2	20050126	EP 2003-727288	20030411

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRIORITY APPLN. INFO.:	DE 2002-10217939	A	20020422
	WO 2003-EP3756	W	20030411

AB The invention relates to the use of petasin -containing, petasin -depleted or petasin -free petasite exts., and/or at least one petasin -containing, petasin -depleted or petasin -free petasite extract fraction, for producing a pharmaceutically active composition for the treatment and/or prophylaxis of diseases, including joint disease and connective tissue disease, arthritis, arthrosis, osteoarthritis, rheumatoid arthritis, chronic polyarthritis, polyps, adenomas, gastro-intestinal diseases, gastro-intestinal ulcerations, gastroduodenitis, and all types of gastritis, spasms of the gastro-intestinal tract, dyskinesia of the bile passages, colitis, Crohn's disease, thromboembolic diseases, coronary diseases, vascular diseases, peripheral occlusive arterial diseases, inflammation in the coronary vessels, myocarditis, myocardial infarction, unstable and stable angina pectoris, transitory ischemic attacks, apoplexy, reversible ischemic neurol. deficit, prolonged ischemic neurol. deficit, spinal column syndrome, dorsalgia, invertebral disk disease, hypertension, headaches, migraines, asthma, hay fever, allergic rhinitis, obstructive respiratory tract diseases, skin diseases, Alzheimer's disease, tuberculosis, eczema, psoriasis, dysmenorrhea, bladder diseases, incontinency, painful spasms in the urogenital region, dysuria, tumors, tumoral pain, neuro vegetative disorders, agitative states, anxiety states, sleeping disorders, depression and/or pain. Thus a composition contained (mg): polar petasin -free petasite extract 25.0; medium chain triglycerides 245.0; glycerol (85%) 23.52-27.60; dry matter from 70% sorbitol solution 17.12-20.10; gelatine 80.89-94.96; red iron oxide 0.47-0.55; glycerol 1.60-1.88; black iron oxide 1.13-1.33. Pyrrolizidine alkaloid-free extract was prepared by acid extraction of a preconcd. extract obtained according to a previously described method.

L21 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	2001:300514 CAPLUS
DOCUMENT NUMBER:	134:331617
TITLE:	Oil-in-water emulsion compositions for polyfunctional active ingredients
INVENTOR(S):	Chen, Feng-jing; Patel, Mahesh V.
PATENT ASSIGNEE(S):	Lipocine, Inc., USA
SOURCE:	PCT Int. Appl., 82 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001028555	A1	20010426	WO 2000-US28835	20001018

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002107265	A1	20020808	US 1999-420159	19991018
US 6720001	B2	20040413		

PRIORITY APPLN. INFO.:	US 1999-420159	A	19991018

AB Pharmaceutical oil-in-water emulsions for delivery of polyfunctional active ingredients with improved loading capacity, enhanced stability, and reduced irritation and local toxicity are described. Emulsions include an aqueous phase, an oil phase comprising a structured triglyceride, and an emulsifier. The structured triglyceride of the oil phase is substantially free of triglycerides having three medium chain (C6-C12) fatty acid moieties, or a combination of a long chain triglyceride and a polarity-enhancing polarity modifier. The present invention also provides methods of treating an animal with a polyfunctional active ingredient, using dosage forms of the pharmaceutical emulsions. For example, an emulsion was prepared, with cyclosporin A as the polyfunctional active ingredient dissolved in an oil phase

including a structured triglyceride (Captex 810D) and a long chain triglyceride (safflower oil). The composition contained (by weight) cyclosporin A 1.0, Captex 810D 5.0, safflower oil 5.0, BHT 0.02, egg phospholipid 2.4, dimyristoylphosphatidyl glycerol 0.2, glycerol 2.25, EDTA 0.01, and water up to 100%, resp.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:880937 CAPLUS
DOCUMENT NUMBER: 134:46783
TITLE: Pharmaceutical compositions for nasal administration of water-soluble drugs
INVENTOR(S): Klocker, Norbert
PATENT ASSIGNEE(S): Hexal A.-G., Germany
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000074652	A1	20001214	WO 2000-EP4800	20000526
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19925289	A1	20001207	DE 1999-19925289	19990602
DE 19936545	A1	20010208	DE 1999-19936545	19990803
EP 1189596	A1	20020327	EP 2000-935121	20000526
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2005505491	T2	20050224	JP 2001-501189	20000526

PRIORITY APPLN. INFO.:		
DE 1999-19925289	A	19990602
DE 1999-19936545	A	19990803
WO 2000-EP4800	W	20000526

AB The invention relates to a nasally administered pharmaceutical composition comprised of at least 1 water-soluble drug, neutral oil and, optionally, at least one solubilizer, whereby the addition of preservatives and propellants can be dispensed with. The composition contains essentially no water. Polyhexanide 20 mg was dissolved in 100 mL LMiglyol-812, the solution was sterilized and filled into a pump-spray.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:865097 CAPLUS
DOCUMENT NUMBER: 134:32988
TITLE: Nasal pharmaceutical composition for water-soluble drugs
INVENTOR(S): Kloecker, Norbert
PATENT ASSIGNEE(S): Hexal A.-G., Germany
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19925289	A1	20001207	DE 1999-19925289	19990602
WO 2000074652	A1	20001214	WO 2000-EP4800	20000526
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,				

CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1189596 A1 20020327 EP 2000-935121 20000526
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
JP 2005505491 T2 20050224 JP 2001-501189 20000526
PRIORITY APPLN. INFO.: DE 1999-19925289 A 19990602
DE 1999-19936545 A 19990803
WO 2000-EP4800 W 20000526

AB A pharmaceutical composition for nasal administration consists of at least a water-soluble drug, neutral oil, and a solution mediator, in which no preservatives and propellants are present and the composition is essentially water-free. Thus, polyhexanide was dissolved in Miglyol-840 and the composition was sterilized and filled into a pump spray.

L21 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:608551 CAPLUS
DOCUMENT NUMBER: 133:213151
TITLE: Pharmaceutical compositions and methods for improved delivery of hydrophobic therapeutic agents
INVENTOR(S): Patel, Manesh V.; Chen, Feng-Jing
PATENT ASSIGNEE(S): Lipocine, Inc., USA
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050007	A1	20000831	WO 2000-US165	20000105
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6294192	B1	20010925	US 1999-258654	19990226
CA 2365536	AA	20000831	CA 2000-2365536	20000105
AU 2000022242	A5	20000914	AU 2000-22242	20000105
AU 771659	B2	20040401		
EP 1158959	A1	20011205	EP 2000-901394	20000105
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002537317	T2	20021105	JP 2000-600619	20000105
NZ 513810	A	20040227	NZ 2000-513810	20000105

PRIORITY APPLN. INFO.: US 1999-258654 A 19990226
WO 2000-US165 W 20000105

AB The present invention relates to triglyceride-free pharmaceutical compns. for delivery of hydrophobic therapeutic agents. Compns. of the present invention include a hydrophobic therapeutic agent and a carrier, where the carrier is formed from a combination of a hydrophilic surfactant and a hydrophobic surfactant. Upon dilution with an aqueous solvent, the composition forms a clear, aqueous dispersion of the surfactants containing the therapeutic agent. The invention also provides methods of treatment with hydrophobic therapeutic agents using these compns. A pharmaceutical composition contained cyclosporin 0.14, Cremophor RH-40 0.41, Arlacel186 0.29, sodium taurocholate 0.26, and propylene glycol 0.46 mg.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:66005 CAPLUS
DOCUMENT NUMBER: 133:16520
TITLE: Studies on the whole utilization of "Yuzu" fruit (citrus junos sieb. ex Tanaka) as new food material (Part 1): Utilization of peel and segment wall in residue of Yuzu juice extract
AUTHOR(S): Monya, Shigeharu; Bessho, Yasumori; Kodama, Masanobu; Matsumoto, Yasuo
CORPORATE SOURCE: Institute Research Center of Ehime Prefecture, Japan
SOURCE: Kenkyu Hokoku - Ehime-ken Kogyo Gijutsu Senta (1999), 37, 67-75
CODEN: KHESEZ; ISSN: 0286-1844
PUBLISHER: Ehime-ken Kogyo Gijutsu Senta
DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB In order to utilize the residue of Yuzu juice extract, which has been almost discarded as the waste, the preparation technique of dry powder from peel and segment wall and paste from segment wall were investigated. Some new food materials usable as flavoring matter or edible fiber matter were obtained. The obtained results are as follow: 1. The drying method of peel was most excellent in **freeze** dry with respect to favor and color. The deterioration of flavor in dry peel powder has been prevented by nitrogen gas packaging and low-temperature storage. 2. The preparation of segment wall powder was achieved by ventilation dry followed by shattering. The cryo-milling was most effective for fining of segment wall paste. The powder and paste contained the edible fiber at the range of about 70% in dry matter. 3. The peel powder can be used as flavoring for several confectionery. The segment wall powder was applied to bread making. The paste of segment wall found to be useful material for jelly and nectar preparation

L21 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:679119 CAPLUS
DOCUMENT NUMBER: 127:322804
TITLE: Primycin compound with **cyclodextrin**
INVENTOR(S): David, Agoston; Satory, Eva; Szabo, Sandor; Szejtli, Jozsef; Szente, Lajos; Vikmon, Andrasne
PATENT ASSIGNEE(S): Chinoin Gyogyszer es Vegyeszeti, Hung.; Medipharma; Human
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9736935	A1	19971009	WO 1997-HU10		19970328
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
AU 9721732	A1	19971022	AU 1997-21732		19970328
PRIORITY APPLN. INFO.:			HU 1996-847	A	19960402
			WO 1997-HU10	W	19970328

AB Non-stoichiometric compds. (1:0.3 to 4.0 mol ratio) of primycin or its components with a **cyclodextrin** are described. Thus, 950 g boric acid was dissolved in 45-L water. In a portion of this solution 12.5 g primycin and 25.5 β- **cyclodextrin** were allowed to react by boiling for 1 h, and the product was poured into the above solution and diluted to 50.0L, filtered and filled into eye-drop containers.

L22 ANSWER 1 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:902535 CAPLUS
DOCUMENT NUMBER: 143:235456
TITLE: Antioxidant compositions and methods of use thereof
INVENTOR(S): Mora-Gutierrez, Adela; Gurin, Michael H.
PATENT ASSIGNEE(S): The Texas A & M University System, USA
SOURCE: U.S. Pat. Appl. Publ., 14 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005184275	A1	20050825	US 2004-784842	20040223
PRIORITY APPLN. INFO.:			US 2004-784842	20040223

AB Disclosed is an antioxidant composition having enhanced oxidative stability, emulsion stability, and health benefits. The composition may include individual ingredients or a synergistic blend of non-reducing sugars, sugar polyols, medium-chain triglycerides, polysaccharides, polyphenols, phospholipids, chitosan, and α-casein, β-casein, κ-casein or protein fragments, glycopeptides, phosphopeptides. The composition may optionally be further utilized for the prevention of hypercholesterolemia or bone mineral loss.

L22 ANSWER 2 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:728966 CAPLUS
DOCUMENT NUMBER: 143:179164
TITLE: UV-shielding cosmetics not containing regulated substances
INVENTOR(S): Matsumoto, Norichika; Tabuchi, Hiromi; Hirao, Kazuyuki; Enami, Namiko
PATENT ASSIGNEE(S): Asento Kaihatsu Y. K., Japan; Sanyo Yushi K. K.
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005213171	A2	20050811	JP 2004-20168	20040128
PRIORITY APPLN. INFO.:			JP 2004-20168	20040128

AB Title cosmetics, which also prevent or alleviate UV-induced skin inflammation (no data), contain fats/**oils** containing γ-linolenic acid (glycerides), conjugated linoleic acid (glycerides), and fats/**oils** containing α-linolenic acid (glycerides), squalene, vitamin A1, A2, E (acetate), and/or **carotene**. The ingredients may be included in or adsorbed on **cyclodextrin**. The cosmetics may also optionally contain folic acid, vitamin B1, B2, B12, K1, K2, nicotinic acid, rutin, daidzin, hesperidin, their aglycons, Phe, Tyr, Trp, vitamin B6, water, Na hyaluronate, ceramides, monoglycerides, glycerin, squalane, surfactants, antiseptic agents, TiO2, ZnO, Fe oxide, HCl, and/or NaOH. Thus, **cyclodextrin** and Phe were pulverized, mixed with TiO2, evening primrose **oil**, linoleic acid, tocopherol, glycerin, squalane, and Na hyaluronate, and emulsified with water to show 98% UV shielding effect.

L22 ANSWER 3 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:600558 CAPLUS
DOCUMENT NUMBER: 143:253966
TITLE: Natural **carotene** microcapsule and making method
INVENTOR(S): Liu, Liguo Fan
PATENT ASSIGNEE(S): Guangzhou Youbao Industry Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, No pp. given
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1545923	A	20041117	CN 2003-10112430	20031203
PRIORITY APPLN. INFO.:			CN 2003-10112430	20031203

AB The invention discloses a natural beta-**carotene** microcapsule and process for preparation, wherein the microcapsule comprises the following raw materials (by weight portion), natural beta-**carotene oil** solution 10-50, modified starch 20-32, beta **cyclodextrin** 5-18, maltodextrin 5-15, **oil** phase emulsifying agent 0.8-2, aqueous phase emulsifying agent 0.7-1.5, dispersing agent 5-15, preservative agent 0.5-1, anti-oxidizing agent 0.1-0.5.

L22 ANSWER 4 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:523236 CAPLUS
DOCUMENT NUMBER: 143:48119
TITLE: Reverse micelle formulations comprising one or more surfactant, a hydrophilic phase and lipophilic or hydrophobic compounds
INVENTOR(S): Liang, Likan
PATENT ASSIGNEE(S): Shire Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005053612	A2	20050616	WO 2004-US39567	20041124
WO 2005053612	A3	20050915		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005191343	A1	20050901	US 2004-995942	20041124
PRIORITY APPLN. INFO.:			US 2003-525572P P	20031126
			US 2004-541389P P	20040202
			US 2004-566157P P	20040428

AB The present invention is directed to reverse micellar formulations for the delivery of hydrophobic or lipophilic compds., particularly therapeutic compds. The formulations contains one or more non-ionic surfactants or a mixture of nonionic and ionic surfactants, a hydrophilic phase composed of one or more hydrophilic solvents and/or solubilizers and/ or aqueous media, and one or more therapeutically active, hydrophobic agents. The compns. optionally further contain P-glycoprotein inhibitors, absorption enhancers or promoters, tight junction modulators, lipid membrane mobilizers, and antioxidants. For example, fenofibrate reverse micelle systems containing both hydrophilic and surfactant-miscible solubilizers were prepared containing PEG-8-caprylic/capric glycerides 6 g, PEG-4 lauryl ether 3.7 g, PEG 400 0.15 g, water 0.15 g and fenofibrate 1 g.

L22 ANSWER 5 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:650049 CAPLUS
DOCUMENT NUMBER: 141:194946
TITLE: Antioxidative compositions for external use containing fullerenes
INVENTOR(S): Ito, Shinobu; Matsubayashi, Kenji
PATENT ASSIGNEE(S): Mitsubishi Corporation, Japan
SOURCE: PCT Int. Appl., 80 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004067678	A1	20040812	WO 2004-JP699	20040127

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO

JP 2004250690	A2	20040909	JP 2004-19081		20040127
EP 1595936	A1	20051116	EP 2004-705495		20040127

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

JP 2004269523	A2	20040930	JP 2004-45499		20040220
PRIORITY APPLN. INFO.:			JP 2003-17866	A	20030127
			JP 2003-86523	A	20030220
			WO 2004-JP699	W	20040127

OTHER SOURCE(S): MARPAT 141:194946

AB As a tech. means of enabling the application of fullerenes and analogs thereof in various fields relating to biocompatibility to achieve a novel function (in particular, as a means of applying the same to cosmetics and formulated skin prepns. for external use), an antioxidative composition comprises as the active ingredient at least one member selected from among fullerenes, fullerene-containing oxygen derivs. and the above-described fullerenes and fullerene-containing oxygen derivs. modified with an organic compound or included therein.

L22 ANSWER 6 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:574011 CAPLUS
DOCUMENT NUMBER: 141:190061
TITLE: Nucleic acid fruit vegetable nutrient product and its production process
INVENTOR(S): Yan, Huaiwei; Yi, Min; Yan, Huaipu; Yan, Huaijin; Yan, Huaizhang; Yan, Huaiqi
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 32 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1403024	A	20030319	CN 2002-133542	20020729
PRIORITY APPLN. INFO.:			CN 2002-133542	20020729

AB The title nutrient contains fresh fruit-vegetable juice or meals 20-90, composite nucleic acid and/or protein powder 0-30, vitamin-pigment compllexes 0-1, antimicrobial composite 0-10, and composite fatty acid 0-5 part. The process comprises (1) selecting fresh fruit and vegetable, removing old stalk and mud sand, immersing in cold water for 20-40 min, adding CaO or Ca(OH)2 for 10-20 min, washing, centrifugating, sorting, killing enzyme for 5- 20 s, sterilizing for 1-5 s, treating by steam vacuum and activated carbon, cutting, milling, homogenizing till its particle size is 5- 15 μm, adding Ca lactate, killing enzyme for 3-10 min to obtain fresh juice, drying the juice at 60-80° to obtain powder; (2) putting malt extract-agar culture medium into a tube, sterilizing by 0.12 MPa steam for 5-20 min, cooling to below 30°, inoculating Penicillium and hydrolyzing DNA and RNA, culturing at 30° for 3 d, culturing in a eggplant bottle, adjusting pH to 6.0, sterilizing with 0.1 MPa steam for 15-20 min, cooling to below 30 min, fermenting at 25-80°under O2, discharging after the activity of enzyme is the highest, filtering, storing at below 10°, putting yeast, maize flower powder, melissa powder or other plant flower powder, immersing in water for 4-6 h, freezing at 10-20° for 40-60 min, defreezing at 80-90°, diluting, adding NaOH, stirring, degrading at 63-65° for 0.5-1 h, cooling to 45-55°, enzymolyzing for 2 h g in the presence of proteinase, heating to 96-100°, keeping for 3-6 min, cooling to 10-20°, adjusting pH to 6-6.5, concentrating, drying to obtain composite protein-nucleic acid;. (3) Immersing chlorophyll into ethanol, dissolving **carotenoid** into vegetable **oil**, adding methylcellulose, removing ethanol by distillation; (4) mixing **cyclodextrin**, lysozyme and garlic **oil**, drying at below 50°, pulverizing to obtain antimicrobial composite; (5) mixing linoleic acid, α-linolenic acid and γ-linolenic ac; and (6) mixing the raw material to obtain the product. The product can be used as additives of food, drinks, flavoring agent, flavoring agent, medicine, etc.

L22 ANSWER 7 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:533984 CAPLUS

DOCUMENT NUMBER: 141:76788
TITLE: Taxane-based compositions and methods of use
INVENTOR(S): Zhang, Kai; Smith, Gregory A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004127551	A1	20040701	US 2002-330804	20021227
PRIORITY APPLN. INFO.:			US 2002-330804	20021227

AB Taxane-based compns. and methods of using the same to achieve target blood levels of a taxane in a mammal, e.g., to treat taxane-responsive malignant and non-malignant diseases are described. Compns. of the invention exhibit long-term stability and overall palatability. Also disclosed are methods for using the compns. as anal. tools for pharmacokinetic studies. For example, a solution was prepared containing (weight/volume) paclitaxel 1.20%, vitamin E TPGS 40.00%, propylene glycol 40.00%, ascorbyl palmitate 0.50%, dl-α-tocopherol 0.50%, and dehydrated alc. to 100 mL. The solution was stable showing minimal levels of paclitaxel degradation products. In addition, impurities were less than 3.5% after as long as 6 mo of incubation.

L22 ANSWER 8 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:473124 CAPLUS
DOCUMENT NUMBER: 141:42908
TITLE: Coated **carotenoid cyclodextrin** complexes
INVENTOR(S): Reuscher, Helmut; Kagan, Daniel I.; Madhavi, Doddabele L.
PATENT ASSIGNEE(S): Bioactives LLC, USA; Wacker Biochem Corp.
SOURCE: U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004109920	A1	20040610	US 2002-309999	20021204
PRIORITY APPLN. INFO.:			US 2002-309999	20021204

AB Coated **cyclodextrin** and **carotenoid** complexes are stable against oxidation and exhibit higher biouptake than **oil** -based, lipophile based, and micellar **carotenoid** compns. The coating may be an **oil**, or a naturally occurring, optionally derivatized polymer or a pharmaceutically acceptable synthetic polymer. A **lutein-γ- cyclodextrin** complex was prepared and coated with soy **oil**.

L22 ANSWER 9 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:551372 CAPLUS
DOCUMENT NUMBER: 139:106487
TITLE: Taxane based compositions containing solubilizers
INVENTOR(S): Zhang, Kai; Smith, Gregory A.
PATENT ASSIGNEE(S): Ivax Research, Inc., USA
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057208	A1	20030717	WO 2002-US41632	20021227

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2471572	AA	20030717	CA 2002-2471572	20021227
AU 2002360816	A1	20030724	AU 2002-360816	20021227
EP 1461029	A1	20040929	EP 2002-796098	20021227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1615130	A	20050511	CN 2002-827386	20021227
JP 2005525310	T2	20050825	JP 2003-557566	20021227
PRIORITY APPLN. INFO.:			US 2001-344921P P	20011228
			WO 2002-US41632 W	20021227

AB Disclosed are taxane-based compns. and methods of using the same to achieve target blood levels of a taxane in a mammal, e.g., to treat taxane-responsive malignant and non-malignant diseases. Compns. of the invention exhibit long-term stability and overall palatability. Also disclosed are methods for using the compns. as anal. tools for pharmacokinetic studies. Thus, a formulation contained paclitaxel 1.20, Vitamin E TPGS 40.00, propylene glycol 40.00, ascorbyl palmitate 0.50, DL-α-tocopherol 0.50, and alc. qs to 100 mL.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN.
ACCESSION NUMBER: 2003:282273 CAPLUS
DOCUMENT NUMBER: 138:282781
TITLE: Microbicidal formulation comprising essential **oils** or their derivatives
INVENTOR(S): Ben-Yehoshua, Shimshon
PATENT ASSIGNEE(S): Israel
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003028451	A2	20030410	WO 2002-IL808	20021003
WO 2003028451	A3	20040318		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2462511	AA	20030410	CA 2002-2462511	20021003
EP 1434486	A2	20040707	EP 2002-775184	20021003
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005504102	T2	20050210	JP 2003-531804	20021003
NZ 532165	A	20050930	NZ 2002-532165	20021003
ZA 2004002693	A	20050308	ZA 2004-2693	20040406
NO 2004001791	A	20040702	NO 2004-1791	20040503
US 2004234662	A1	20041125	US 2004-491491	20040624
PRIORITY APPLN. INFO.:			IL 2001-145767 A	20011004
			WO 2002-IL808 W	20021003

AB Microbicidal aqueous formulation comprise: (i) an effective amount of at least one essential **oil** component, or derivs. thereof, said derivs. thereof obtained by exposure to light or by oxidation, or mixts. thereof; and (ii) at least one addnl. stabilizer selected from the group consisting of ethanol in an amount of from 10% to about 50%, an emulsifier, an antioxidant, or an encapsulating agent. The invention is further directed to a method for inhibiting microbial development using said microbicidal aqueous formulation.

L22 ANSWER 11 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:327443 CAPLUS
DOCUMENT NUMBER: 137:324416
TITLE: Processing and quality evaluation of low cholesterol egg products

AUTHOR(S): Chiang, Yea-Ling; Yang, Sheng-Chin
CORPORATE SOURCE: Department of Food and Nutrition, Providence University, Shalu, 433, Taiwan
SOURCE: Taiwan Nongye Huaxue Yu Shipin Kexue (2001), 39(2), 108-116
CODEN: TNHKFW; ISSN: 1605-2471
PUBLISHER: Chinese Agricultural Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The addition of 5.0% β- **carotene** increased the brightness and yellowness of low cholesterol scrambled egg, low cholesterol mayonnaise and low cholesterol sponge cake made from reduced cholesterol egg yolk (CREY) treated with β- **cyclodextrin**, and these results were similar to those for the original egg yolk products. Low cholesterol egg products made from CREY or modified CREY could reduce by 80% the cholesterol contents as compared to those made from EY. Low cholesterol sponge cake had lower fat content and higher swelling volume than sponge cake. The addition of 1% xanthan gum and 0.5% HLB11 emulsifier in modified low cholesterol scrambled egg and low cholesterol sponge cake resulted in better sensory results. Adding 4.0% corn **oil** and 0.5% HLB11 emulsifier in modified low cholesterol mayonnaise apparently increased the stability and viscosity of the mayonnaise, which made the product acceptable in sensory evaluation. In general, the results of this research showed that making low cholesterol egg products with modified CREY is feasible from the standpoint of processing technol.

L22 ANSWER 12 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:730546 CAPLUS
DOCUMENT NUMBER: 135:278040
TITLE: Taxane-based compositions
INVENTOR(S): Zhang, Kai; Smith, Gregory A.; Gutierrez-Roca, Jose C.
PATENT ASSIGNEE(S): Baker Norton Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001072299	A1	20011004	WO 2001-US9382	20010323
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2404370	AA	20011004	CA 2001-2404370	20010323
EP 1315484	A1	20030604	EP 2001-920699	20010323
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003528141	T2	20030924	JP 2001-570260	20010323
PRIORITY APPLN. INFO.:			US 2000-191802P P	20000324
			WO 2001-US9382 W	20010323

AB Taxane-based compns. and methods of using the same to achieve target blood levels of a taxane in a mammal, e.g., to treat taxane-responsive malignant and non-malignant diseases, are described. Compns. comprise a taxane, a carrier, a co-solubilizer, and a stabilizer in a form suitable for oral administration to a mammal and they exhibit long-term stability and overall palatability. Methods for using taxane-based compns. as anal. tools for pharmacokinetic studies are also disclosed. For example, a solution was prepared containing Paclitaxel 12 mg, vitamin E TPGS 400.00 mg, propylene glycol 400.00 mg, ascorbyl palmitate 5.0 mg, dl-α-tocopherol 5.0 mg and d Dehydrated alc. to 1.0 mL.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 13 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:520522 CAPLUS
DOCUMENT NUMBER: 136:330410
TITLE: A Plackett-Burnam screening design directs the efficient formulation of multicomponent DRV liposomes

AUTHOR(S): Loukas, Y. L.
CORPORATE SOURCE: Panepistimiopolis Zografou, School of Pharmacy, Department of Pharmaceutical Chemistry, University of Athens, Athens, 157 71, Greece
SOURCE: Journal of Pharmaceutical and Biomedical Analysis (2001), 26(2), 255-263
CODEN: JPBADA; ISSN: 0731-7085
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A computer-based technique was applied for the optimization of recently described multicomponent protective liposomal formulations. These formulations contain riboflavin in either free form or complexed with **γ- cyclodextrin** as a model drug, sensitive to photochem. degradation, as well as various light absorbers and antioxidants incorporated into the lipid bilayer and/or the aqueous phase of liposomes. During the liposomal preparation, a series of 11 factors were isolated as important to affect their effectiveness as stabilization systems. These factors were related, first, to the composition of liposomes and, second, to variations during the preparation procedure. The Plackett-Burnam design described in this study was applied for the isolation of the significant factors in order to concentrate more on them. The stabilization ratio of the vitamin was the response variable of the system to be optimized. In order to assure the presence of the examined components in liposomes, the entrapment values were calculated for all the materials, either spectrophotometrically or using second-order derivative spectrophotometry. The optimum formulation should be characterized from the higher protection of the drug.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:323006 CAPLUS
DOCUMENT NUMBER: 135:76082
TITLE: Encapsulated **carotenoid** preparations from high-**carotenoid** canola **oil** and **cyclodextrins** and their stability
AUTHOR(S): Basu, Hemendra N.; Del Vecchio, Anthony
CORPORATE SOURCE: Calgene, Inc., A Monsanto Company, Mt. Prospect, IL, 60056, USA
SOURCE: Journal of the American Oil Chemists' Society (2001), 78(4), 375-380
CODEN: JAOCA7; ISSN: 0003-021X
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Cyclodextrin** complexes were prepared using 1:1 and 1:0.5 molar ratios of **cyclodextrins** and high-**carotenoid** canola **oil**. **β- Cyclodextrin** formed powdered complexes with a molar ratio of 1:0.5, **cyclodextrin**/high-**carotenoid** canola **oil**. With a 1:1 molar ratio, the complex was clumpy. In the case of **α- cyclodextrin**, powdery complexes were formed with either 1:1 or 1:0.5 molar ratio. The triglyceride **oil** present in the complexes varied between 28.87 and 48.2%, and there was no segregation of the triglyceride **oil** during complex formation. The stability of **carotenoids** and tocopherols was also the same in brown bottles whether the complexes were kept under nitrogen or under oxygen. In clear glass vials, the amts. of **α-** and **β-carotene** went down, but there was very little change in tocopherols. With respect to sterols, more than 90% of the sterols present in the degummed **oil** were present in the **α-cyclodextrin** complexes, thereby indicating a higher affinity of the sterols in the **cyclodextrin** cavity.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 15 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:49723 CAPLUS
DOCUMENT NUMBER: 130:85914
TITLE: Topical emulsifiable triphase composition containing combination of **cyclodextrin** and amorphous silica
INVENTOR(S): Jeanjean, Michel; Gilardi, Sandrine
PATENT ASSIGNEE(S): Pierre Fabre Dermo Cosmetique S. A., Fr.
SOURCE: Fr. Demande, 16 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent

LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2763506	A1	19981127	FR 1997-6103	19970520
FR 2763506	B1	19990813		
PRIORITY APPLN. INFO.:			FR 1997-6103	19970520

AB A topical emulsifiable triphase composition contains a biphasic lipophilic-hydrophilic lq. phase and a solid phase comprising a combination of **cyclodextrin** and amorphous silica. A topical composition contained β- **cyclodextrin** 1.2, amorphous silica 004, lactose 0.8 in the powder phase, grape seed **oil**, alpha tocopherol acetate, beta **carotene**, melaleuca **oil**, volatile silicone, and isohexadecane q.s. in the lipophilic phase; D-panthenol, methionine, natural peptide, vitamin pp, vitamin B6, zinc sulfate, alc., and water q.s. in the hydrophilic phase.

L22 ANSWER 16 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:735042 CAPLUS
DOCUMENT NUMBER: 130:7287
TITLE: Process for preparing decolorized **carotenoid** -**cyclodextrin** complexes
INVENTOR(S): Sikorski, Christopher; Schwartz, Joel L.; Shklar, Gerald
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 14 pp., Cont.-in-part of U.S. Ser. No. 339,018, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5834445	A	19981110	US 1995-552374	19951103
PRIORITY APPLN. INFO.:			US 1989-392857 B2	19890811
			US 1990-469171 B1	19900124
			US 1991-708130 B1	19910529
			US 1991-741203 B1	19910730
			US 1992-860201 B2	19920326
			US 1992-947067 B2	19920918
			US 1994-339018 B2	19941114

AB Complexes of β- **carotene** with **cyclodextrin** are described, having reduced color intensity and a shift of color to tones more neutral than the deep red of uncomplexed β- **carotene**. When these complexes are added to topical compns. such as typical skin cream bases in amts. up to 1.0% β- **carotene** w/v, the result is a cream having a pinkish to beige color which is cosmetically acceptable, as opposed to the mustard orange to red color seen in creams containing like amts. of uncomplexed β- **carotene**. Thus, 50 mg of β- **carotene** were mixed thoroughly with 50 mg of β- **cyclodextrin**, then 1 mL of distilled water was added to the mixture to obtain a composition with light brown color and a watery texture. Fifty milligrams of Vitamin E succinate were then added to this composition, followed by addition of 1 mL of glycerin and 150 mg of gelatin. These addns. resulted in a composition with a light brown color and a somewhat thicker texture.
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 17 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:293427 CAPLUS
DOCUMENT NUMBER: 129:8597
TITLE: Embedding and encapsulation of controlled release particles
INVENTOR(S): Van Lengerich, Bernhard H.
PATENT ASSIGNEE(S): Van Lengerich, Bernhard H., USA
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9818610	A1	19980507	WO 1997-US18984	19971027
W: AU, CA, JP, NO, PL, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2269806	AA	19980507	CA 1997-2269806	19971027
CA 2269806	C	20060124		
AU 9749915	A1	19980522	AU 1997-49915	19971027
AU 744156	B2	20020214		
EP 935523	A1	19990818	EP 1997-912825	19971027
EP 935523	B1	20040929		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002511777	T2	20020416	JP 1998-520558	19971027
EP 1342548	A1	20030910	EP 2003-10031	19971027
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 277739	E	20041015	AT 1997-912825	19971027
NO 9902036	A	19990428	NO 1999-2036	19990428
PRIORITY APPLN. INFO.:			US 1996-29038P P	19961028
			US 1997-52717P P	19970716
			EP 1997-912825 A3	19971027
			WO 1997-US18984 W	19971027

AB Controlled release, discrete, solid particles which contain an encapsulated and/or embedded component such as a heat sensitive or readily oxidizable pharmaceutically, biol., or nutritionally active component are continuously produced without substantial destruction of the matrix material or encapsulant. A release-rate controlling component is incorporated into the matrix to control the rate of release of the encapsulant from the particles. The addnl. component may be a hydrophobic component or a high water binding capacity component for extending the release time. The plasticizable matrix material, such as starch, is admixed with at least one plasticizer, such as water, and at least one release-rate controlling component under low shear mixing conditions to plasticize the plasticizable material without substantially destroying the at least one plasticizable material and to obtain a substantially homogeneous plasticized mass. The plasticizer content is substantially reduced and the temperature of the plasticized mass is substantially reduced prior to admixing the plasticized mass with the encapsulant to avoid substantial destruction of the encapsulant and to obtain a formable, extrudable mixture The mixture is extruded though a die without substantial or essentially no expansion and cut into discrete, relatively dense particles. Release properties may also be controlled by precoating the encapsulant and/or coating the extruded particles with a film-forming component. An example of encapsulation of acetylcysteine is given using starch, polyethylene, glycerol monostearate, and vegetable **oil**.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 18 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:696286 CAPLUS
DOCUMENT NUMBER: 127:322844
TITLE: 2(k - p) Fractional factorial design via fold over: application to optimization of novel multicomponent vesicular systems
AUTHOR(S): Loukas, Yannis L.
CORPORATE SOURCE: Centre for Drug Delivery Research, School of Pharmacy, University of London, London, WC1N 1AX, UK
SOURCE: Analyst (Cambridge, United Kingdom) (1997), 122(10), 1023-1027
CODEN: ANALAO; ISSN: 0003-2654
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A computer-based technique based on a 2(k - p) fractional factorial design was applied for the optimization of recently described multicomponent protective liposomal formulations. These formulations contain riboflavin (vitamin B2) as a model, photosensitive drug, in addition to **Oil** Red O, deoxybenzone, oxybenzone and β- **carotene** as **oil**-soluble light absorbers and antioxidants incorporated into the lipid bilayer, and sulisobenzone as a water-soluble light absorber incorporated into the aqueous phase of liposomes. The presence or absence of these five different light absorbers in multilamellar liposomes containing the vitamin free or complexed with γ- **cyclodextrin** comprised the six factors of the system, each one examined at two levels. The stabilization ratio of the vitamin and its percentage entrapment in

liposomes were the two response variables of the system to be optimized. The entrapment values were calculated for all the materials, either spectrophotometrically, using second-order derivative spectrophotometry, or fluorimetrically. The response variables were predicted by multiple regression equations comprising combinations of the six formulation factors. Higher entrapment and higher protection for the drug should characterize the optimum formulation.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 19 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:565898 CAPLUS
DOCUMENT NUMBER: 127:166694
TITLE: A study of bioavailability of different forms of synthetic β- **carotene** in volunteers
AUTHOR(S): Spirichev, V. B.; Yakushina, L. M.; Charitonchik, L. A.; Isaeva, V. A.; Shkarina, T. N.; Malachova, E. A.; Poznanskaya, A. A.
CORPORATE SOURCE: Nutrition Institute, Russian Academy of Med. Sciences, Moscow, Russia
SOURCE: Voprosy Pitaniya (1996), (6), 22-26
CODEN: VPITAR; ISSN: 0042-8833
PUBLISHER: AO "Nutritek"
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The concns. of β- **carotene** were determined by HPLC in blood serum of 30 healthy men and women aged 17-50 yr in May-June 1990. The concns. ranged 3.3-29.5, with an average of 12.0±1.2 μg/100 mL. The concns. of total **carotenes**, as determined by a spectrophotometric method, were 58.0-215.0, with an average of 120.5±7.5 μg/100 mL. The levels of total **carotenoids** were 10 times higher than the levels of β- **carotene** detected by HPLC. The levels of **carotenes** in blood serum detected by the two methods were pos. correlated (r = 0.8). Single oral doses of 25 mg synthetic β- **carotene** in 3 different forms (powder with **cyclodextrin**, 30% microcryst. suspension in vegetable **oil**, or 10% aqueous soluble form produced by Hoffman-La Roche) increased the β- **carotene** concns. in blood serum with a maximum within 24-48 h. The bioavailability of β- **carotene** from the **cyclodextrin**/β- **carotene** preparation, as determined by absolute increases of β- **carotene** concns. in serum, was the lowest among the 3 forms. The bioavailability of β- **carotene** from the 30% **oil** suspension and the 10% aqueous soluble was almost the same. The retinol levels in blood serum remained in the normal range, thus were not affected by the intake of β- **carotene**.

L22 ANSWER 20 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:452708 CAPLUS
DOCUMENT NUMBER: 125:113354
TITLE: Fat substitutes containing water soluble beta-**carotene**
INVENTOR(S): Fortier, Nancy E.
PATENT ASSIGNEE(S): Procter and Gamble Co., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5532009	A	19960702	US 1995-473889	19950607
CA 2223780	AA	19961219	CA 1996-2223780	19960423
CA 2223780	C	20010612		
WO 9639870	A1	19961219	WO 1996-US5560	19960423
W: AU, BR, CA, CN, JP, MX				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9655641	A1	19961230	AU 1996-55641	19960423
AU 708653	B2	19990812		
EP 831727	A1	19980401	EP 1996-913005	19960423
EP 831727	B1	20010613		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
CN 1190333	A	19980812	CN 1996-195420	19960423
CN 1066027	B	20010523		
BR 9609231	A	19990511	BR 1996-9231	19960423

JP 11506922	T2	19990622	JP 1996-500481	19960423
ES 2157438	T3	20010816	ES 1996-913005	19960423
PRIORITY APPLN. INFO.:			US 1995-473889	A 19950607
			WO 1996-US5560	W 19960423

AB The present invention relates to non-absorbable, non-digestible fat compns. fortified with a water soluble **carotenoid/cyclodextrin** complex. The compns. are useful as fat substitutes in food and pharmaceutical compns. The **carotenoid** is readily bioavailable and resists partitioning into the fat/fat-like phase.

L22 ANSWER 21 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:874218 CAPLUS
DOCUMENT NUMBER: 123:296447
TITLE: Study of bioavailability and pharmacodynamics of various forms of β- **carotene** in volunteers
AUTHOR(S): Yakushina, L. M.; Malakhova, E. A.; Shkarina, T. N.; Poznanskaya, A. A.; Spirichev, V. B.
CORPORATE SOURCE: Inst. Nutrition, Russian Academy Medical Sci., Moscow, Russia
SOURCE: Voprosy Meditsinskoi Khimii (1995), 41(4), 36-41
CODEN: VMDKAM; ISSN: 0042-8809
PUBLISHER: Meditsina
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The bioavailability of β- **carotene** from a water-soluble formulation based on **cyclodextrin** (Cyclocar tablets) vs. oily formulation was studied in volunteers given a single dose of 25 mg. The concns. of β- **carotene** and major **carotenoids** were measured in the blood serum during the experiment by HPLC. The maximum content of β- **carotene** in the serum was attained 24-30 and 30-48 h after oily formulations and Cyclocar and were 48.0 ± 7.7 and 28.1 ± 3.6 mg/dL, resp. The rate of β- **carotene** utilization from Cyclocar was 2.2 times less than that from the **oil** paste. Besides, β- **carotene** absorbed from these oily drugs retained in the blood serum for longer period than that from Cyclocar.

L22 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:629913 CAPLUS
DOCUMENT NUMBER: 123:51286
TITLE: Characterization and Photoprotection Studies of a Model γ- **Cyclodextrin**-Included Photolabile Drug Entrapped in Liposomes Incorporating Light Absorbers
AUTHOR(S): Loukas, Yannis L.; Jayasekera, Pramukh; Gregoriadis, Gregory
CORPORATE SOURCE: School of Pharmacy, University of London, London, WC1N 1AX, UK
SOURCE: Journal of Physical Chemistry (1995), 99(27), 11035-40
CODEN: JPCHAX; ISSN: 0022-3654
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Riboflavin (R), a photosensitive model drug, was included into γ- **cyclodextrin** (γCD) and the complex formed (R:γCD) characterized by NMR and differential scanning calorimetry. R or R:γCD was entrapped into the aqueous phase of liposomes by the dehydration-rehydration procedure (DRV liposomes) or the classical method (MLV liposomes) both of which produce multilamellar vesicles. Liposomes, composed of egg phosphatidylcholine and equimolar cholesterol, were made to contain in a number of formulations one or more of the lipid-soluble light absorbers **oil** red O, oxybenzone, and dioxybenzone and, in some cases, the antioxidant β- **carotene**, all incorporated into the bilayer structure. Exposure of R-containing liposomal formulations to UV light revealed various degrees of photoprotection depending on the type of liposomes used, whether or not the vitamin was included in γCD, the identity of light absorbers as well as the presence of β- **carotene**. Optimal photoprotection (267-fold stabilization compared to free R in solution) under the conditions described, was obtained when the R:γCD complex was entrapped in DRV liposomes incorporating all lipid-soluble absorbers and β- **carotene**.

L22 ANSWER 23 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:365120 CAPLUS
DOCUMENT NUMBER: 122:169914
TITLE: Novel liposome-based multicomponent systems for the

protection of photolabile agents
AUTHOR(S): Loukas, Yannis L.; Jayasekera, Pramukh; Gregoriadis, Gregory
CORPORATE SOURCE: Centre for Drug Delivery Research, School of Pharmacy, University of London, 29-39 Brunswick Square, London, WC1N 1AX, UK
SOURCE: International Journal of Pharmaceutics (1995), 117(1), 85-94
CODEN: IJPHDE; ISSN: 0378-5173
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A photosensitive drug (riboflavin) was entrapped as such or in the form of β- or γ- **cyclodextrin** complexes into the aqueous phase of multilamellar dehydration-rehydration vesicles (DRV liposomes) made of equimolar egg phosphatidylcholine or dipalmitoylphosphatidylcholine and cholesterol. Riboflavin-containing DRV were prepared in the absence or presence of one or more of the lipid-soluble UV absorbers **oil** red O, oxybenzone and dioxybenzone (entrapped into the lipid phase) and the water-soluble sulisobenzone (entrapped in the aqueous phase of liposomes together with riboflavin). In some expts., lipid-soluble absorbers were supplemented with the antioxidant β- **carotene**. Entrapment values for free (41-47%) and complexed (19-23%) riboflavin were estimated fluorimetrically with addnl. data from NMR studies confirming that the complexes were entrapped as intact entities. Entrapment values for each of the UV light lipid-soluble absorbers (79-98%) and β- **carotene** (78 and 88%) were estimated by the use of the second-order derivative of their UV spectra to circumvent interference from overlapping absorption spectra of the other agents, when present. A number of conditions of entrapment were found to reduce values, for instance co-entrapment of sulisobenzone together with the vitamin in the case of riboflavin and, for all other materials, the absence (or reduced content) of cholesterol in DRV or certain variations in their manufacture Exposure of a variety of riboflavin-containing DRV prepns. to UV light revealed optimal protection with a formulation containing the β- **cyclodextrin** complex of the vitamin, all three lipid-soluble light absorbers and β- **carotene** , increasing the half-life of riboflavin 266-fold. Results suggest that liposome-based multicomponent systems could be developed for the protection of photolabile agents in therapeutics and other uses.

L22 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:506672 CAPLUS
DOCUMENT NUMBER: 121:106672
TITLE: Ellagic acid glycosides and their manufacture with **cyclodextrin** synthetase
INVENTOR(S): Sakakibara, Tatsuya; Nakamura, Kazuo; Mizusawa, Kyoshi
PATENT ASSIGNEE(S): Kikkoman Corp, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05331183	A2	19931214	JP 1992-161904	19920529
JP 3024864	B2	20000327		
PRIORITY APPLN. INFO.:			JP 1992-161904	19920529

AB Ellagic acid glycosides I (n = 1-6), which have high water solubility and are useful as antioxidants for edible fats and **oils**, antimutagens, antitumors, etc., are manufactured by treating ellagic acid with **cyclodextrin** synthetase in presence of sugar donors. Ellagic acid, arginine, and α- **cyclodextrin** in H2O were treated with **Cyclodextrin** Glucanotransferase "Amano" at pH 7.5 and 50° for 15 h to produce ellagic acid glycosides. Addition of 10 μM ellagic acid 4-O-α-D-glucopyranoside inhibited decomposition of β- **carotene**.

L22 ANSWER 25 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:465560 CAPLUS
DOCUMENT NUMBER: 121:65560
TITLE: Process for producing **oil**-in-water type beta-**carotene**
INVENTOR(S): Lu, Ling; Yuan, Sheng; Qin, Huailan; et al.
PATENT ASSIGNEE(S): Nanjing Normal University, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 4 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1079218	A	19931208	CN 1993-110751	19930408
CN 1038220	B	19980506		

PRIORITY APPLN. INFO.: CN 1993-110751 19930408

AB The title process for making 0.5-10% **oil**-in-water type involves mixing β- **carotene** (solution in **oil**) 20-25, an emulsifier higher than HLB 3-8, water soluble gel 20-30, an emulsifier lower than HLB 5-8, water 50-150, and sugar 40-50 parts at 20-100° (undergoing emulsification process), drying the resulting emulsion, and making granules. E.g., a mixture of CMC-Na 20, Tween 80 5, and water 150 parts was heated at 60-80° with stirring, 20 parts 20% β- **carotene** in **oil** and 8 parts Span 80 were added, and the resulting mixture was emulsified and then mixed at 1:1 ratio with com. sucrose to give 5% β- **carotene** **oil**-in-water granules.

L22 ANSWER 26 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:210678 CAPLUS
DOCUMENT NUMBER: 116:210678
TITLE: Use of mechanochemical activation to modify properties of bioactive compounds
AUTHOR(S): Chuev, V. P.; Kameneva, O. D.; Chikalo, T. M.; Nikitchenko, V. M.
CORPORATE SOURCE: Union Vit. Res. Inst., Belgorod, USSR
SOURCE: Sibirskii Khimicheskii Zhurnal (1991), (5), 156-7
CODEN: SKZHEC; ISSN: 0002-3426
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To improve water-solubility and oxidation stability of **oil**-soluble vitamins A, E, K, β- **carotene** and other poorly soluble bioactive compds. (BAC)-cumarin and riboflavin derivs., the dispersion formation of mol. complexes (entropy-frozen systems) with dextran, polyvinyl-pyrrolidone, β- **cyclodextrin** (CD) and other filling materials have been studied under mech. activation (MA) of binary mixts. Mechanochem. activation in production of mol. complexes is a more promising method compared to the others, particularly for inclusion complexes, dispersion of sep. constituents and their mixing under these conditions are not associated either with the mech. cracking of organic mols. or with the modification of BAC physico-chemical properties.

L22 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:172730 CAPLUS
DOCUMENT NUMBER: 116:172730
TITLE: Manufacture of handmade Japanese noodles containing fruit juices and **cyclodextrin**
INVENTOR(S): Sumioka, Sohei
PATENT ASSIGNEE(S): Enshu Tenobe Seimen K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03266951	A2	19911127	JP 1990-65615	19900316

PRIORITY APPLN. INFO.: JP 1990-65615 19900316

AB Handmade Japanese noodles are manufactured by kneading materials containing flour or buckwheat flour, NaCl, vegetable **oils**, and optional vinegar (for raw noodles) with (i) orange juice, **carotene**, and **cyclodextrin** (I) or (ii) grape juice, purple yam or other potatoes with similar effect to the yam, and I. The noodles show the color of the fruit and fruit-like flavor.

L22 ANSWER 28 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:19966 CAPLUS
DOCUMENT NUMBER: 116:19966

TITLE: Separation of cholesterol from edible fats by using starch-containing products
AUTHOR(S): Schlimme, E.; Lorenzen, P. C.; Precht, D.
CORPORATE SOURCE: Inst. Chem. Phys., Bundesanst. Milchforsch., Kiel, Germany
SOURCE: Kieler Milchwirtschaftliche Forschungsberichte (1991), 43(2), 149-59
CODEN: KMWFAF; ISSN: 0023-1347
DOCUMENT TYPE: Journal
LANGUAGE: German

AB Cholesterol was removed from butter **oil** (or a sunflower **oil** model) by adding 1 g β- **cyclodextrin**, dextrin, potato starch, or wheat flour to a 10 g sample, stirring at 40 or 60° for 3 h, adding water, stirring another 3 h, crystallizing the butter **oil**, and separating the aqueous phase. Cholesterol reduction in the butter **oil** was 34.4% for β- **cyclodextrin** and 15.6% for starch; dextrin and wheat flour were less effective. No addnl. removal occurred at 60° as compared with 40°. The process also removes aroma compds. and β- **carotene** so that organoleptic quality is decreased.

L22 ANSWER 29 OF 29 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1977:516647 CAPLUS
DOCUMENT NUMBER: 87:116647
TITLE: Antideliquescence agents for organic compounds
INVENTOR(S): Nawata, Yoritaka; Yamamoto, Katsuya; Sano, Mamoru
PATENT ASSIGNEE(S): Oosawa, Takashi, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52012684	A2	19770131	JP 1975-88719	19750718
JP 58044349	B4	19831003		

PRIORITY APPLN. INFO.: JP 1975-88719 A 19750718

AB Fondant and sugars are prevented from deliquescing by adding 1-30% by weight of clathrate compds. consisting of 20-80 parts of cyclic dextrins and 20-80 parts of fat by weight Cyclic dextrins included α- **cyclodextrin**, β- **cyclodextrin** [7585-39-9], and fats include mono-, di-, triglycerides, phosphatides, and **carotenoids**. Thus, 5 mL of water and 5 g soybean **oil** were mixed with 10 g β- **cyclodextrin** to give a clathrate compound Granular sugar, 300 g, was mixed with the clathrate compound, dried and then powdered Sponge cake smeared with this powder was held at 30° and 80% relative humidity for 24 h without any change. These antideliquescence agents have no effect on inorg. substances.

L23 ANSWER 1 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1292347 CAPLUS
DOCUMENT NUMBER: 144:35384
TITLE: Fermentative production of fine chemicals from starch hydrolyzates
INVENTOR(S): Pompejus, Markus; Freyer, Stephan; Lohscheidt, Markus; Zelder, Oskar; Boy, Matthias
PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 96 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005116228	A2	20051208	WO 2005-EP5728	20050527
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 102004026152	A1	20051215	DE 2004-102004026152	20040528
PRIORITY APPLN. INFO.:			DE 2004-102004026152A	20040528

AB The inventions provides processes for the production of a variety of fermentation products from sugars obtained from starch containing grains. In particular, the inventions provides for the production of monosaccharides from grains such as corn, wheat or rye by enzymic treatment of meal derived from one of the above grains. The obtained carbohydrates then can serve as the carbon sources for the production of fermentation products such as amino acids, enzymes or vitamins.

L23 ANSWER 2 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:951863 CAPLUS
TITLE: Study on the inclusion compound of β-**carotene** with β- **cyclodextrin**
AUTHOR(S): Zhou, Yi-ping; Yan, Chun-Li; Xiu, Zhi-long
CORPORATE SOURCE: Department of Biological Science and Technology, School of Environmental and Biological Science and Technology, Dalian University of Technology, Dalian, 116024, Peop. Rep. China
SOURCE: Jingxi Yu Zhuanyong Huaxuepin (2005), 13(13), 24-27
CODEN: JYZHA7; ISSN: 1008-1100
PUBLISHER: Jingxi Yu Zhuanyong Huaxuepin Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Taking the inclusion rate of β- **carotene** as a criterion, inclusion compound of β- **carotene** with β- **cyclodextrin** via ultrasonic method was prepared The optimum conditions determined by single factor and orthogonal design were as follows: the ultrasonic power was 300W with duration time of 40 min; n(β- **carotene**): n(β- **cyclodextrin**) = 1:4. The inclusion compound was confirmed by micrograph and X-RD. The experiment results showed that the retaining rate of β- **carotene** increased by 25.5% in inclusion compound, compared with a controlled sample.

L23 ANSWER 3 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:284030 CAPLUS
DOCUMENT NUMBER: 142:330269
TITLE: Assay solution compositions and methods in high throughput screening for effectors of G protein-coupled receptors
INVENTOR(S): Fang, Ye; Ferrie, Ann M.; Hong, Yulong; Pai, Sadashiva K.; Peng, Jinlin; Webb, Brian L.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 16 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005069953	A1	20050331	US 2003-676351	20030930
PRIORITY APPLN. INFO.:			US 2003-676351	20030930

AB Buffered assay solns. for performing either binding or functional assays on arrays G protein-coupled receptors, and methods for their use are described. The standardized buffer solution can be used in high throughput screening of G protein-coupled receptor arrays for effector ligands. The buffered assay solution has an underlying composition having: a buffer reagent with a pH in the range of about 6.5 to about 7.9; an inorg. salt of a monovalent or divalent cation, at a concentration from about 1 mM to about 500 mM; and optionally a combination of: a blocker reagent at a concentration of about 0.01 weight % to about 2 weight % of the composition, or a protease-inhibitor at a concentration of about 0.001 mM to about 100 mM. In an embodiment for functional assay uses, the composition is modified to also include a GTP-analog, a GDP salt, and an anti-oxidant.

L23 ANSWER 4 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:119962 CAPLUS
DOCUMENT NUMBER: 142:197042
TITLE: Compositions for improvement of bioavailability of effective ingredients in general food, health food, or dietary supplements
INVENTOR(S): Kawade, Yuji; Osakabe, Naomi; Murashima, Koichiro; Baba, Seigo; Kawabata, Keiko
PATENT ASSIGNEE(S): Meiji Seika Kaisha, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005034135	A2	20050210	JP 2004-52598	20040227
PRIORITY APPLN. INFO.:			JP 2003-187715 A	20030630

AB The compns. contain ingredients which are effective for conditioning of the intestinal environment and/or the antioxidant activity. The ingredients effective for conditioning of the intestinal environment may contain probiotics, prebiotics, and/or biogenics such as lactic acid bacteria, oligosaccharides, dietary fiber, or bifidus factor, and the ingredients effective for conditioning of the antioxidant activity may be vitamins, **carotenoids**, and minerals. The bioavailability of effective ingredients in general food, health food, or dietary supplements is improved by intake of the intestinal environment- and/or antioxidant activity-conditioning ingredients.

L23 ANSWER 5 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:55102 CAPLUS
DOCUMENT NUMBER: 142:120580
TITLE: Tablet and process for producing the same
INVENTOR(S): Hara, Takahiro; Kimura, Masao; Sakai, Yasushi
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005004923	A1	20050120	WO 2004-JP10072	20040708

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,

AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: JP 2003-194798 A 20030710

AB A tablet comprises an active ingredient and either a **cyclodextrin** or a **cyclodextrin** derivative and rapidly disintegrates in the mouth. The tablet is characterized in that the **cyclodextrin** or **cyclodextrin** derivative accounts for 70% by mass or more of the tablet. Also provided is a process for producing the tablet comprising the step of mixing the constituent ingredients together and the step of subsequently tableting the resultant mixture For example, tablets were formulated containing β- **cyclodextrin** 71.33, lactose 24.50, vitamin C 3.06, CaHPO4 1.02, orange flavor 0.1, and sucralose 0.03 %. The tablets were disintegrated in the mouth in 15 s.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 6 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:1081766 CAPLUS

DOCUMENT NUMBER: 142:150970

TITLE: Xanthophylls and α-tocopherol decrease UVB-induced lipid peroxidation and stress signaling in human lens epithelial cells

AUTHOR(S): Chitchumroonchokchai, Chureeporn; Bomser, Joshua A.; Glamm, Jayme E.; Failla, Mark L.

CORPORATE SOURCE: Ohio State University Interdisciplinary PhD Program in Nutrition, Ohio State University, Columbus, OH, 43210, USA

SOURCE: Journal of Nutrition (2004), 134(12), 3225-3232 CODEN: JONUAI; ISSN: 0022-3166

PUBLISHER: American Society for Nutritional Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Epidemiol. studies suggest that consumption of vegetables rich in the xanthophylls **lutein** (LUT) and **zeaxanthin** (ZEA) reduces the risk for developing age-related cataract, a leading cause of vision loss. Although LUT and ZEA are the only dietary **carotenoids** present in the lens, direct evidence for their photoprotective effect in this organ is not available. The present study examined the effects of xanthophylls and α-tocopherol (α-TC) on lipid peroxidn. and the mitogen-activated stress signaling pathways in human lens epithelial (HLE) cells following UV B light (UVB) irradiation When presented with LUT, ZEA, astaxanthin (AST), and α-TC as methyl-β- **cyclodextrin** complexes, HLE cells accumulated the lipophiles in a concentration- and time-dependent manner with uptake of LUT exceeding that of ZEA and AST. Pretreatment of cultures with either 2 μmol/L xanthophyll or 10 μmol/L α-TC for 4 h before exposure to 300 J/m2 UVB radiation decreased lipid peroxidn. by 47-57% compared with UVB-treated control HLE cells. Pretreatment with the xanthophylls and α-TC also inhibited UVB-induced activation of c-JUN NH2-terminal kinase (JNK) and p38 by 50-60 and 25-32%, resp. There was substantial inhibition of UVB-induced JNK and p38 activation for cells containing <0.20 and .apprx.0.30 nmol xanthophylls/mg, resp., whereas >2.3 nmol α-TC/mg protein was required to significantly decrease UVB-induced stress signaling. These data suggest that xanthophylls are more potent than α-TC for protecting human lens epithelial cells against UVB insult.

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 7 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:921352 CAPLUS

DOCUMENT NUMBER: 142:266479

TITLE: Bixin and α- **cyclodextrin** inclusion complex and stability tests

AUTHOR(S): Lyng, Sabrina Mendes Ortega; Passos, Mauricio; Fontana, Jose Domingos

CORPORATE SOURCE: Course of Nutrition, UTP-University Tuiuti of Parana, Brazil

SOURCE: Process Biochemistry (Oxford, United Kingdom) (2005), 40(2), 865-872 CODEN: PBCHE5; ISSN: 1359-5113

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Bixin or 6,6'-diapo-.vphi.,.vphi.'-carotenodioic acid (mono)-Me ester,

isolated and purified as the major and water insol. **carotenoid** from "urucum" (Bixa orellana, L.) seeds, was submitted to complexation with a natural **cyclodextrin** model (α-CD) using both column percolation and sonication. This water-soluble product was analyzed by spectrophotometry and 1H NMR to confirm complex formation as well as protection for the **carotenoid** from the effects of light and air or the combination of both. Also evaluated was the capability for free or complexed bixin as quencher/scavenger of free radicals such as α-α-diphenyl-β-picrylhydrazide (DPPH) and its degradation time course when challenged with ozone generated directly in the pigment solution or indirectly in the surrounding environment. The results showed that the complexed form of bixin is more resistant than free bixin to the damage caused by light and air or their combination besides and shows improved water solubility as required for novel formulations of medical or pharmaceutical interest.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 8 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:841791 CAPLUS
DOCUMENT NUMBER: 141:346145
TITLE: Preparation and application of indicator compositions for registering the thawing process
PATENT ASSIGNEE(S): Herrmann, Karsten, Germany; Knittel, Heinz
SOURCE: Ger., 14 pp.
CODEN: GWXXAW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10325714	B3	20041014	DE 2003-10325714	20030606
EP 1484588	A1	20041208	EP 2004-12972	20040602
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
PRIORITY APPLN. INFO.:			DE 2003-10325714 A	20030606

AB The invention concerns indicator compns. for recognizing and showing that temperature rises above a certain value, especially to indicate thawing processes in a way that the indicator composition includes an encapsulated substance, e.g. dye in cyclodextran that is mixed with a temperature sensitive substance, e.g. mixture of fatty acids, that has a m.p. at the temperature that has to be controlled; upon exceeding the preset temperature the temperature-sensitive mixture melts which in turn causes the encapsulated substance to change its structure and optical properties. Indicator substances include dyes, metal chelates, and multicomponent reaction systems, e.g. enzymes with substrates. The indicator compns. can be packed in transparent material. The heat-sensitive indicators are used for checking the refrigeration of foods and drugs during storage and transportation. Thus bromphenol blue was encapsulated in β- **cyclodextrin**; the complex was embedded in a fatty acid mixture with m.p. of 8°C. The fatty acid mixture was composed of (%): caproic acid 0.25; caprylic acid 2.00; capric acid 1.50; lauric acid 11.75; myristic acid 4.50; palmitic acid 12.00; stearic acid 2.00; oleic acid 57.25; linoleic acid 8.00; linolenic acid 0.75. The indicator mixture was colorless before freezing and it showed a light blue color upon freezing.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 9 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:841592 CAPLUS
DOCUMENT NUMBER: 142:261668
TITLE: Study on the inclusion complexation interaction of β- **cyclodextrin** and β-**carotene** by UV-Vis spectra
AUTHOR(S): Feng, Guang-zhu; Lu, Kui; Li, He-ping
CORPORATE SOURCE: Department of Chemistry and Chemical Engineering, Zhengzhou Institute of Technology, Zhengzhou, 450052, Peop. Rep. China
SOURCE: Guangpuxue Yu Guangpu Fenxi (2004), 24(9), 1099-1102
CODEN: GYGFED; ISSN: 1000-0593
PUBLISHER: Beijing Daxue Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB β- **Cyclodextrin** (β-CD), a kind of cyclic

oligosaccharides, was found to possess a strong inclusion ability with β- **carotene**. The inclusion compds. of β-CD with β- **carotene** were prepared by the copptn. method, and studied by UV-Vis spectra of different mole ratio β-CD/β- **carotene** in the H2O+ ethanol solution (H2O for β-CD, and ethanol for β- **carotene**). Equilibrium constant of inclusion compound was determined by UV-Vis spectra. The results indicate that 3.25 mol of β-CD can include one mole β- **carotene** to form inclusion compound by Van der Waals force and hydrophobic interaction etc. The optimum synthesis conditions of inclusion compound of β-CD with β- **carotene** is that the mole ratio of β-CD/β- **carotene** is 3.25:1 (mol/mol), the concentration ratio of β-CD H2O solution β- **carotene** solution is 12:1 (mol·L-1/mol·L-1), and the time and temperature of inclusion reaction are 2 h and 30°, resp. Equilibrium constant of inclusion compound (Ka) is 9.46 + 1011 L·mol-1. The selective binding ability of β-CD with β- **carotene** has been discussed from the viewpoint of size/shape-fitting and geometry fitting between the host cavity and the guest mol. The resistance to oxidation and photooxidn., and the solubility in H2O of β- **carotene** were increased by inclusion with β-CD.

L23 ANSWER 10 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:697588 CAPLUS
DOCUMENT NUMBER: 141:206101
TITLE: Manufacture of dried persimmon powders
INVENTOR(S): Yoshida, Eiichi
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004236608	A2	20040826	JP 2003-30467	20030207
PRIORITY APPLN. INFO.:			JP 2003-30467	20030207

AB Dried persimmon powders, useful for foods, are manufactured by (1) cutting 100 g dried persimmon with seeds together with 0.6 g Ca gluconate and 30-40 mL H2O, (2) vacuum-drying and freezing the kneaded product, (3) drying the freeze-dried product at a temperature same as or higher than ordinary temperature, and (4) milling the dried product by a mixer. A method using **cyclodextrin** instead of Ca gluconate is also described. The powders are rich in tannins, **carotene**, vitamin A, minerals, etc., and storage stable.

L23 ANSWER 11 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:495551 CAPLUS
DOCUMENT NUMBER: 141:42585
TITLE: Cosmetics containing crystalline α-maltotetraosyl α-glucoside
INVENTOR(S): Tachikawa, Hiromi; Aga, Hajime; Kubota, Norio; Fukuda, Shigeharu
PATENT ASSIGNEE(S): Hayashibara Biochemical Laboratories, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004168785	A2	20040617	JP 2004-26219	20040203
WO 2005074866	A1	20050818	WO 2005-JP1470	20050202

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,

MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: JP 2004-26219 A 20040203
AB This invention relates to cosmetics which provide excellent moisturizing effects. The cosmetics comprise (1) crystalline α-maltotetraosyl α-glucoside (I) and (2) ≥ 1 or 2 powdery substances selected from the group consisting of silicic acid, silica, Mg silicate, talc, kaolin, mica, bentonite, titanium mica, Bi oxychloride, Zr oxide, MgO, ZnO, titania, CaO, MgCO3, iron oxide, ultramarine blue, prussian blue, chromium oxide, chromium hydroxide, calamine, zeolite, carbon black, polyamide, polyester, polyethylene, polypropylene, polystyrene, polyurethane, vinyl resin, urea resin, phenol resin, fluororesin, silicone resin, acrylic resin, melamine resin, epoxy resin, polycarbonate resin, divinylbenzene-styrene copolymer, celluloid, acetyl cellulose, cellulose, starch, chitin, chitosan, and silk. For example, a powder foundation contained silicone-treated titania 8.8, silicone-treated talc 15.29, silicone-treated mica 8.8, liquid sericite 30.8, polymethyl methacrylate 8.8, titania 4.4, saccharides containing I 8.8, silicone-treated yellow iron oxide 1.76, silicone-treated red iron oxide 0.45, silicone-treated black iron oxide 0.1, dimethicone 4.49, trimethylsiloxysilicic acid 1.5, Eldew PS-304 1, neopentyl glycol dioctanoate 1, squalane 4, tocopherol 0.01 %, and preservatives q.s.

L23 ANSWER 12 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:453326 CAPLUS
DOCUMENT NUMBER: 141:8907
TITLE: Bleach-containing cleaning wipes and their uses
INVENTOR(S): Ford, Francis Cornelio; Foley, Peter Robert
PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004046301	A1	20040603	WO 2003-US36589	20031114
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005107282	A1	20050519	US 2003-704883	20031110
CA 2505671	AA	20040603	CA 2003-2505671	20031114
AU 2003295550	A1	20040615	AU 2003-295550	20031114
EP 1560911	A1	20050810	EP 2003-786745	20031114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006505683	T2	20060216	JP 2004-570410	20031114

PRIORITY APPLN. INFO.: US 2002-426185P P 20021114
US 2003-491719P P 20030801
WO 2003-US36589 W 20031114

AB A wipe especial suitable for removing **carotenoid** soils from plastic dishware, comprises a water-insol. substrate having applied thereto a cleaning composition comprising: a surfactant and a bleach, which is a peroxy carboxylic acid or a hydrophilic precursor thereof, and/or a hydrophilic bleach or precursors thereof.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 13 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:397705 CAPLUS
DOCUMENT NUMBER: 141:174330
TITLE: Preparation and characterization of inclusion compound of **β- carotene** with **β-cyclodextrin** as [5]-pseudorotaxanes
AUTHOR(S): Sheng, Liang-quan; Zheng, Xiao-yun; Liu, Shao-min; Tong, Hong-wu; Xiao, Hou-rong; Liu, Qing-liang
CORPORATE SOURCE: Department of Chemistry, University of Science and Technology of China, Hefei, Anhui, 230026, Peop. Rep.

China
SOURCE: Huaxue Yanjiu (2004), 15(1), 5-8
CODEN: HUYAF4; ISSN: 1008-1011
PUBLISHER: Huaxue Yanjiu Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB A new pseudorotaxanes formed in 1:1 alc.-water solution, by self-assembly of a wire-type mol. β- **carotene** and four **cyclodextrin** mols. was reported. Elemental anal. methods proved the existence of [5]-pseudorotaxanes. Meanwhile, characterizations of the pseudorotaxanes were studied by UV-VIS, FTIR, x-ray diffractometry and 1H NMR.

L23 ANSWER 14 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:220032 CAPLUS
DOCUMENT NUMBER: 140:259103
TITLE: Multi-use vessels and plastic blow fill containers for active vitamin D formulations
INVENTOR(S): Mazess, Richard B.; Driscoll, Jeffrey W.; Goldensoph, Creighton Reed; Levan, Leon W.
PATENT ASSIGNEE(S): Bone Care International, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004053895	A1	20040318	US 2002-247766	20020918
US 2004058895	A1	20040325	US 2003-608480	20030627
WO 2004026218	A2	20040401	WO 2003-US28498	20030910
WO 2004026218	A3	20040715		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-247766 A2 20020918
AB This invention relates to multi-use dispensing vessels containing pharmaceutical formulations of active vitamin D compds., and also to plastic fill containers containing active vitamin D formulations. The vitamin D formulation comprises an active vitamin D compound or analog; a non-ionic solubilizer; a lipophilic antioxidant, and optionally, an agent(s) that is an organic solvent, a preservative or both, in an aqueous vehicle. The formulation comprises a vitamin D compound or analog, a non-ionic solubilizer, a small amount of lipophilic antioxidant, and optionally, an agent that includes an organic solvent (e.g., ethanol) or co-solvents (e.g., propylene glycol and ethanol) and/or a preservative (e.g., benzyl alc.). The formulations may be formulated in a variety of concns. in various vial sizes for various administration dosages.

L23 ANSWER 15 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:220031 CAPLUS
DOCUMENT NUMBER: 140:259102
TITLE: Formulation for lipophilic agents
INVENTOR(S): Mazess, Richard B.; Driscoll, Jeffrey W.; Goldensoph, Creighton Reed; Levan, Leon W.
PATENT ASSIGNEE(S): Bone Care International, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004053894	A1	20040318	US 2002-247765	20020918
CA 2498331	AA	20040401	CA 2003-2498331	20030910
WO 2004026231	A2	20040401	WO 2003-US28499	20030910

WO 2004026231 A3 20040812
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
BR 2003014354 A 20050719 BR 2003-14354 20030910
EP 1553956 A2 20050720 EP 2003-749606 20030910
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
JP 2006502185 T2 20060119 JP 2004-537767 20030910
PRIORITY APPLN. INFO.: US 2002-247765 A 20020918
WO 2003-US28499 W 20030910

AB The invention relates to pharmaceutical formulations of lipophilic therapeutic agents in which such agents are solubilized in largely aqueous vehicles, and processes for preparing and using the same. A formulation was prepared from a vitamin D compound, 1αa-(OH)D2, benzyl alc. 2.5, and Tween-20 0.5-2.5% and BHT 20 ppm. The results of the phase one study indicate that patients treated with the MTD of 1α-(OH)D2 for at least six months report that bone pain associated with metastatic disease is significantly diminished. The results of the phase two study indicate that after 2 yr, CAT scans, x-rays and bone scans used for evaluating the progression of metastatic disease show stable disease or partial remission in many patients treated at the lower dosage, and stable disease and partial or complete remission in many patients treated at the higher dosage. The present invention provides an improved formulation for lipophilic drug agents that are only slightly soluble in an aqueous vehicle.

L23 ANSWER 16 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:213135 CAPLUS
DOCUMENT NUMBER: 141:354980
TITLE: Inclusion complexes of **carotenoids** with **cyclodextrins**: 1H-NMR, EPR, and optical studies
AUTHOR(S): Polyakov, Nikolai E.; Leshina, Tatyana V.; Konovalova, Tatyana A.; Hand, Elli O.; Kispert, Lowell D.
CORPORATE SOURCE: Institute of Chemical Kinetics and Combustion, Novosibirsk, 630090, Russia
SOURCE: Free Radical Biology & Medicine (2004), 36(7), 872-880 CODEN: FRBMEH; ISSN: 0891-5849
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Direct evidence of **carotenoid/cyclodextrin** inclusion complex formation was obtained for the water-soluble sodium salt of β-caroten-8'-oic acid (I) by using 1H-NMR and UV-Vis absorption spectroscopy. It was shown that this **carotenoid** forms a stable 1:1 inclusion complex with β- **cyclodextrin** (stability constant K11 ≈ 1500 M-1). All other **carotenoids** under study in the presence of **cyclodextrins** (CDs) form large aggregates in aqueous solution as demonstrated by very broad absorption spectra and considerable change in color. By using the EPR spin trapping technique, the scavenging ability of I toward OOH radicals was compared in DMSO and in the aqueous CD solution A considerable decrease in PBN/OOH spin adduct yield was detected in the presence of uncomplexed I because of a competing reaction of the **carotenoid** with OOH radical. No such decrease occurred in the presence of the I/CD complex. Moreover, a small increase in spin adduct yield (pro-oxidant effect) is most likely due to the reaction of the **carotenoid** with Fe3+ to regenerate Fe2+, which in turn regenerates the OOH radical. These data show that CD protects the **carotenoid** from reactive oxygen species. On the other hand, complexation with CD results in considerable decrease in antioxidant ability of the **carotenoid**.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 17 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:146879 CAPLUS
DOCUMENT NUMBER: 140:286417
TITLE: Microencapsulation of lycopene with **cyclodextrins**

AUTHOR(S): Matioli, Graciette; Rodriguez-Amaya, Delia B.
CORPORATE SOURCE: UEM-Depto. Farmacia e Farmacologia, Maringa, PR, 87020- 9000, Brazil
SOURCE: Ciencia e Tecnologia de Alimentos (Campinas, Brazil) (2003), 23(Supl.), 102-105
CODEN: CTALDN; ISSN: 0101-2061
PUBLISHER: Sociedade Brasileira de Ciencia e Tecnologia de Alimentos
DOCUMENT TYPE: Journal
LANGUAGE: Portuguese

AB Lycopene is an important **carotenoid** natural substance used in food industry as food dye. It is important for human health because of its role in decreasing the risk of chronic diseases, such as cancer and cardiovascular diseases. Because of its high degree of unsatn., it is prone to isomerization and oxidation Microencapsulation of lycopene was studied as a preservation procedure using **cyclodextrins** (CD) as encapsulating substances. Lycopene was extracted from guava and isolated on an open column. Lycopene in acetone solution was added to aqueous solns. of α-, β-, and γ-CD; acetone was subsequently eliminated with N2 flushing. Initially the complexation with the 3 CD forms was studied at a lycopene:CD molar ratio of 1:50. Lycopene formed complexes with β-CD and γ-CD, but not with α-CD. After 180 days of storage at refrigeration temperature, the lycopene levels remained constant in the lycopene-γ-CD complex, but were decreased by 80% in the lycopene-β-CD complex. During evaluation of different lycopene-CD molar ratios, the maximum lycopene inclusion was achieved with γ-CD at lycopene:CD molar ratio of 1:200. The complex was dispersible in water and maintained the red color of lycopene. Its stability under light exposure was excellent, with retention being 100% during 40 days storage at ambient temperature

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 18 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:97234 CAPLUS
DOCUMENT NUMBER: 140:142222
TITLE: Diagnostic agents for pancreatic exocrine function
INVENTOR(S): Kohno, Tadashi; Hosoi, Isaburo; Ohshima, Junko; Shibata, Kunihiko; Ito, Asuka
PATENT ASSIGNEE(S): Tokyo Gas Company Limited, Japan
SOURCE: Eur. Pat. Appl., 33 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1386934	A1	20040204	EP 2003-77521	19990924
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2000159773	A2	20000613	JP 1999-261979	19990916
JP 3669880	B2	20050713		
JP 2000159810	A2	20000613	JP 1999-263300	19990917
NZ 507949	A	20020301	NZ 1999-507949	19990921
CA 2451924	AA	20000325	CA 1999-2451924	19990924
EP 989137	A2	20000329	EP 1999-307554	19990924
EP 989137	A3	20001011		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6905668	B1	20050614	US 2000-589419	20000607
AU 769555	B2	20040129	AU 2001-89240	20011105
US 2005019252	A1	20050127	US 2004-926563	20040825
US 2005019253	A1	20050127	US 2004-926564	20040825
US 2005032148	A1	20050210	US 2004-926544	20040825
JP 2006052417	A2	20060223	JP 2005-319212	20051102

PRIORITY APPLN. INFO.:

JP 1998-271252	A	19980925
JP 1998-271253	A	19980925
JP 1999-261979	A	19990916
JP 1999-263300	A	19990917
EP 1999-307554	A3	19990924
NZ 1999-337946	A1	19990921
AU 1999-48865	A3	19990922
US 1999-401739	A3	19990923
CA 1999-2283518	A3	19990924

US 2000-589419 A3 20000607

AB The present invention provides a 13C-labeled oligosaccharide or polysaccharide or a salt thereof excluding U-13C-maltose, 13C-starch, 1-13C-maltotetraose and 1-13C-amylose; a derivative of the 13C-labeled oligosaccharide or polysaccharide or salt thereof; a 13C-labeled inclusion complex or a salt thereof, which comprises a **cyclodextrin** or a modified derivative thereof as a host mol.; a 13C- or 14C-labeled fluorescein ester compound or a salt thereof; and a diagnostic agents for pancreatic exocrine function comprising these compds. 13C- or 14C-labeled.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 19 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:41525 CAPLUS
DOCUMENT NUMBER: 140:110455
TITLE: Complexes of **cyclodextrins** and **carotenoids** for use in feed
INVENTOR(S): Mortensen, Bjarte; Jansson, Stig Tore Kragh
PATENT ASSIGNEE(S): Poltec As, Norway
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004005353	A1	20040115	WO 2003-NO236	20030704
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003258890	A1	20040123	AU 2003-258890	20030704
PRIORITY APPLN. INFO.:			DK 2002-1049 A	20020704
			WO 2003-NO236 W	20030704

AB A complex between a **carotenoid** (e.g., astaxanthin) and **cyclodextrin** is used in feed to enhance the pigmentation in tissues of animals (especially fish with colored flesh). Thus, salmon (Salmo salar) pigmentation and astaxanthin content is improved by incorporation of astaxanthin-**cyclodextrin** complex in feed. The storage stability and color retention of the complexed **carotenoid** is greatly improved compared to uncomplexed **carotenoid**.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 20 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:673823 CAPLUS
DOCUMENT NUMBER: 139:185349
TITLE: Skin preparations containing branched glucans
INVENTOR(S): Kuroda, Akihiro; Ogawa, Tomoyasu; Takaha, Takeshi; Takada, Hiroki; Kuriki, Takashi
PATENT ASSIGNEE(S): Kanebo, Ltd., Japan; Ezaki Glico Co.
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003238447	A2	20030827	JP 2002-31831	20020208
PRIORITY APPLN. INFO.:			JP 2002-31831	20020208

AB This invention relates to skin prepns. to be applied safely without damaging effects of biol. active agents, which comprise (1) glucans having a polymerization degree of 50-5000 and having an inner branched cyclic structure portion and an outer branched structure portion and (2) active agents selected from the group consisting of exts. of Althaea, apricot kernel, fennel, turmeric, oolong tea, rose, phellodendron bark, seaweed, silk

hydrolyzates, chamomilla, licorice, kiwi, black tea, burdock, fermented rice bran, comfrey, hawthorn, Rehmannia root, Perilla, iris, Equisetum arvense, sage, Swertia japonica, green tea, clove, citrus unshin peel, peach kernel, natto, carrot, hibiscus, honey, pine tree, loquat, hoelen, peach leaves, Saxifraga, citrus junos, mucopolysaccharides, sphingolipids, ceramides, cholesterol (or its derivs.), phospholipids, glycyrrhizinic acid (or its salts), vitamin A (or its derivs.), vitamin E (or its derivs.), **carotenoids**, flavonoids, saponins, and/or ascorbic acid (or its derivs.).

L23 ANSWER 21 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:584831 CAPLUS
DOCUMENT NUMBER: 139:270975
TITLE: Direct superoxide anion scavenging by a disodium disuccinate astaxanthin derivative: relative efficacy of individual stereoisomers versus the statistical mixture of stereoisomers by electron paramagnetic resonance imaging
AUTHOR(S): Cardounel, Arturo J.; Dumitrescu, Christian; Zweier, Jay L.; Lockwood, Samuel F.
CORPORATE SOURCE: Davis Heart and Lung Research Institute, Columbus, OH, 43210-1252, USA
SOURCE: Biochemical and Biophysical Research Communications (2003), 307(3), 704-712
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Elsevier Science
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **Carotenoids** are a related group of greater than 600 natural compds., irresp. of geometric- and stereoisomers, with demonstrated antioxidant efficacy. The **carotenoids** are broadly divided into "**carotenes**," or non-oxygen substituted hydrocarbon **carotenoids**, and "xanthophylls," oxygen-substituted **carotenoids**. The natural compds. are excellent singlet oxygen quenchers as well as lipid peroxidn. chain-breakers; this dual antioxidant capacity is generally attributed to the activity of the polyene chain, and increases with the number of conjugated double bonds along the polyene chain length. However, the poor aqueous solubility of most **carotenes** and the vast majority of xanthophylls limits their use as aqueous-phase singlet oxygen quenchers and direct radical scavengers. A variety of introduction vehicles (e.g., organic solvents, **cyclodextrins**) have been used to introduce the insol. **carotenoids** into aqueous test systems. Hawaii Biotech, Inc. (HBI) successfully synthesized a novel **carotenoid** derivative, the disodium disuccinate derivative of astaxanthin (3,3'-dihydroxy-β,β- **carotene**-4,4'-dione) in all-trans (all-E) form. The novel derivative is a water-dispersible sym. chiral mol. with two chiral centers, yielding four stereoisomeric forms: 3R,3'R and 3S,3'S (enantiomers), and the diastereomeric meso forms (3R,3'S and 3'R,3S). The individual stereoisomers were synthesized at high purity (>90% by HPLC) and compared directly for efficacy with the statistical mixture of stereoisomers obtained from the synthesis from the com. source of astaxanthin (1:2:1 ratio of 3S,3'S, meso, and 3R,3'R, resp.). Direct scavenging of superoxide anion was evaluated in a standard in vitro isolated human neutrophil assay by ESR (EPR) imaging, employing the spin-trap DEPMPO. Each novel derivative was tested in pure aqueous formulation and in ethanolic formulation shown to completely disaggregate the compds. in solution In each case, the ethanolic formulation was a more potent scavenging vehicle. No significant differences in scavenging efficiency were noted among the individual stereoisomers and the statistical mixture of stereoisomers, suggesting that the polyene chain alone was responsible for superoxide scavenging. Dose-ranging revealed that the statistical mixture of stereoisomers of the novel derivative, at millimolar (mM) concns., could nearly completely eliminate the superoxide anion signal generated in the activated human neutrophil assay. All ethanolic formulations of the novel derivs. exhibited increased scavenging efficiency over equimolar concns. of non-esterified astaxanthin delivered in a DMSO vehicle. These novel compds. will likely find utility in applications requiring aqueous delivery of a highly potent direct radical scavenger.
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 22 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:377207 CAPLUS
DOCUMENT NUMBER: 138:361479
TITLE: Molecular electronic component used to construct nanoelectronic circuits, molecular electronic

component, electronic circuit and method for producing the same
INVENTOR(S): Lossau, Harald; Hartwich, Gerhard
PATENT ASSIGNEE(S): Friz Biochem Gmbh, Germany
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003041182	A2	20030515	WO 2002-DE4144	20021108
WO 2003041182	A3	20031030		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10155054	A1	20030612	DE 2001-10155054	20011109
DE 10155054	C2	20031023		
DE 20121631	U1	20030724	DE 2001-20121631	20011109
AU 2002351666	A1	20030519	AU 2002-351666	20021108
EP 1442485	A2	20040804	EP 2002-787355	20021108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

PRIORITY APPLN. INFO.: DE 2001-10155054 A 20011109
WO 2002-DE4144 W 20021108

AB The invention relates to a mol. electronic component used to construct nanoelectronic circuits. The mol. electronic component comprises a redox-active unit with an electron donor and an electron acceptor. The electron donor and the electron acceptor comprise 1 point of contact each for connection to other components and the points of contact allow a charge carrier transfer to the component and away from the component. Especially, the point of contact of electron donor and electron acceptor is a permanent point of contact for mediating charge carrier transport via a permanent chemical bond, the point of contact comprising 1 binding partner of the chemical bond each. A plurality of such components can be assembled via the points of contact to an assembly or to an electronic circuit.

L23 ANSWER 23 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:284518 CAPLUS
DOCUMENT NUMBER: 139:138466
TITLE: Extraction of **carotenoids** from Folium Perillae (purple and green leaves)
AUTHOR(S): Liu, Dachuan; Wang, Jing
CORPORATE SOURCE: Wuhan Polytechnic University, Wuhan, 430023, Peop. Rep. China
SOURCE: Zhongguo Liangyou Xuebao (2002), 17(1), 54-58
CODEN: ZLXUFO; ISSN: 1003-0174
PUBLISHER: Zhongguo Liangyou Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The condition for extracting **carotenoids** from Folium Perillae (purple and green leaves) was optimized through odd factor tests and orthogonal experiment The factors affecting extraction of **carotenoids** during supercrit. CO2 extraction were studied. The identification of the main components of **carotenoids** were accomplished by HPLC. The microencapsulation of **carotenoids** with β-**cyclodextrin** as wall material was also investigated.

L23 ANSWER 24 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:277327 CAPLUS
DOCUMENT NUMBER: 139:312168
TITLE: Improved aqueous solubility of crystalline astaxanthin (3,3'-dihydroxy-β, β- **carotene** -4,4'-dione) by Captisol (sulfobutyl ether β-**cyclodextrin**)
AUTHOR(S): Lockwood, Samuel F.; O'Malley, Sean; Mosher, Gerold L.
CORPORATE SOURCE: Hawaii Biotech, Inc., Aiea, HI, 96701, USA

SOURCE: Journal of Pharmaceutical Sciences (2003), 92(4), 922-926
CODEN: JPMSAE; ISSN: 0022-3549
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In the current study, the ability of sulfobutyl ether β-**cyclodextrin** (sodium), as the Captisol brand, to increase the aqueous water solubility of crystalline astaxanthin was evaluated. Complexation of crystalline astaxanthin with Captisol increased the apparent water solubility of crystalline astaxanthin approx. 71-fold, to a concentration in the 2 μg/mL range. It is unlikely that this increase in solubility will result in a pharmaceutically acceptable chemical delivery system for humans. However, the increased aqueous solubility of crystalline astaxanthin to the range achieved in the current study will likely find utility in the introduction of crystalline astaxanthin into mammalian cell culture systems that have previously been dependent upon liposomes, or toxic organic solvents, for the introduction of **carotenoids** into aqueous solution

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 25 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:124444 CAPLUS
DOCUMENT NUMBER: 139:296654
TITLE: Preparation of chlorinating hemin capsules and observation of their dissolution rate
AUTHOR(S): Yuan, Xi; Hong, Qing; Lin, Gongzhou; Xu, Renfei
CORPORATE SOURCE: the First Affiliated Hospital, Fujian Medical University, Fuzhou, 350005, Peop. Rep. China
SOURCE: Zhongguo Yiyuan Yaoxue Zazhi (2002), 22(8), 499-500
CODEN: ZYYAEP; ISSN: 1001-5213
PUBLISHER: Zhongguo Yiyuan Yaoxue Zazhi Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The chlorinating hemin capsules were prepared from hemin, β-**carotene** and other components and their dissoln. rate was observed Hemin and β- **carotene** were coated with β-**cyclodextrin** and then the complex capsules were prepared The chlorinating hemin and β- **carotene** were extracted and determined by spectrophotometric method. The results showed that the accumulating dissoln. rate of chlorinating hemin and β- **carotene** was >70%. The method for preparing chlorinating hemin capsules was suitable and their quality was reliable and met the standard of Chinese Pharmacopoeia.

L23 ANSWER 26 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:574905 CAPLUS
DOCUMENT NUMBER: 137:129822
TITLE: Method of preparing pharmaceutical or dietary compositions for conveying labile substances into the intestine
INVENTOR(S): Cecchetti, Sergio; Gatti, Valter
PATENT ASSIGNEE(S): Giuliani S.P.A., Italy
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002058673	A1	20020801	WO 2002-EP515	20020117
WO 2002058673	C1	20040527		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: IT 2001-MI141 A 20010126

AB Method of preparation of pharmaceutical or dietary compns. comprising a polysaccharide, a phospholipid and an active principle, characterized in

that it comprises the following stages: (a) dry mixing of the said polysaccharide, phospholipid and active principle; (b) adding an aqueous solution containing a pH buffer, in a smaller amount by weight relative to the dry mixture obtained in the said stage (a) and in a ratio not greater than 1:3, thus forming moist granules; (c) drying of the said moist granules, thus obtaining the said compns. in the form of powder. Thus a powder containing a lipase inhibiting active substance was prepared using a Lodige-type mixer and fluidized-bed drying. The ingredients were (kg): oat fiber 100; hydrolized protein 60; Vitamin E (50%) 2; beta **carotene** (10%) 1; chromium-containing yeast (0.3); maltodextrin 50; soy lecithin 50; citric acid/sodium citrate buffer pH = 4-5 30 L;.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 27 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:504594 CAPLUS
DOCUMENT NUMBER: 137:68183
TITLE: Pharmaceutical compositions consisting of water-soluble or poorly water-soluble active substances and hyaluronic acid
INVENTOR(S): Kloecker, Norbert
PATENT ASSIGNEE(S): Audit Institute for Medical Services and Quality Assurance G.m.b.H., Germany
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002051380	A1	20020704	WO 2001-EP15344	20011227
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
DE 10064219	A1	20020711	DE 2000-10064219	20001222
PRIORITY APPLN. INFO.:			DE 2000-10064219 A	20001222

AB The invention relates to a pharmaceutical preparation consisting of at least one water-soluble or poorly water-soluble active substance, of hyaluronic acid or its derivs. and, optionally, of at least one solubilizer and/or adjuvant. The formulations are especially used for nasal compns. Thus 50 mg Fentanyl and 0.01 g hyaluronic acid were dissolved in 100 mL water, sterile filtrated and filled in a pump spray that was set for 140 mL doses.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 28 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:438204 CAPLUS
DOCUMENT NUMBER: 137:311101
TITLE: Non-covalent associations of cyclomaltooligosaccharides (**cyclodextrins**) with **carotenoids** in water. A study on the α- and β- **cyclodextrin** /ψ,ψ- **carotene** (lycopene) systems by light scattering, ion-spray ionization and tandem mass spectrometry
AUTHOR(S): Mele, Andrea; Mendichi, Raniero; Selva, Antonio; Molnar, Peter; Toth, Gyula
CORPORATE SOURCE: Dipartimento di Chimica, Materiali ed Ingegneria Chimica "G. Natta", Politecnico di Milano, Milan, I-20131, Italy
SOURCE: Carbohydrate Research (2002), 337(12), 1129-1136
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Water-soluble complexes of the dietary **carotenoid** ψ,ψ-**carotene** (lycopene) with cyclomaltohexaose (α-**cyclodextrin**, αCD) and cyclomaltoheptaose (β-**cyclodextrin**, βCD) have been prepared and characterized via multi-angle light scattering (MALS), ion-spray/electrospray ionization (IS/ESI) mass spectrometry (MS) and tandem MS. MALS expts. point out that large aggregates of particles, on the nanometer-size scale, are present in water, with meaningful differences in the shape of the αCD/lycopene

aggregates with respect to βCD/lycopene analogs. The true 1:1 αCD/lycopene inclusion complex has been observed by IS/ESIMS and confirmed by tandem MS. The structure of CD/lycopene aggregations in water is proposed which are consistent with the combined MALS and MS exptl. results.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 29 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:181487 CAPLUS
DOCUMENT NUMBER: 137:133916
TITLE: A supramolecular enzyme model catalyzing the central cleavage of **carotenoids**
AUTHOR(S): French, Richard R.; Holzer, Philipp; Leuenberger, Michele; Nold, Mathias C.; Woggon, Wolf-D.
CORPORATE SOURCE: University of Basel, Institute of Organic Chemistry, Basel, CH-4056, Switz.
SOURCE: Journal of Inorganic Biochemistry (2002), 88(3-4), 295-304
CODEN: JIBIDJ; ISSN: 0162-0134
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:133916
AB Several bis-β- **cyclodextrin** metalloporphyrins were prepared as supramol. receptors of **carotenoids**. The binding consts. of **carotenoids** to receptors were determined by quenching the fluorescence of the porphyrins on hydrophobic binding of **carotenoids** within the cavities of **cyclodextrins**. Ka = 8.3 + 106 M-1 was calculated for binding of β,β- **carotene** to bis-β- **cyclodextrin** Zn porphyrin. The corresponding Ru complex catalyzes the central cleavage of **carotenoids** in the presence of tert-Bu hydroperoxide in a biphasic system.
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 30 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:106163 CAPLUS
DOCUMENT NUMBER: 136:293724
TITLE: Development and Validation of Oxygen Radical Absorbance Capacity Assay for Lipophilic Antioxidants Using Randomly Methylated β- **Cyclodextrin** as the Solubility Enhancer
AUTHOR(S): Huang, Dejian; Ou, Boxin; Hampsch-Woodill, Maureen; Flanagan, Judith A.; Deemer, Elizabeth K.
CORPORATE SOURCE: Brunswick Laboratories, Wareham, MA, 02571, USA
SOURCE: Journal of Agricultural and Food Chemistry (2002), 50(7), 1815-1821
CODEN: JAFCAU; ISSN: 0021-8561
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors recently reported the improved oxygen radical absorbance capacity (ORAC) assay using fluorescein (FL) as the fluorescent probe. The current ORACFL assay is limited in hydrophilic antioxidant due to the aqueous environment of the assay. Lipophilic antioxidants mainly include the vitamin E family and **carotenoids**, which play a critical role in biol. defense systems. The current ORACFL assay was expanded to lipophilic antioxidants. Randomly methylated β- **cyclodextrin** (RMCD) was introduced as the water solubility enhancer for lipophilic antioxidants. Seven percent RMCD (weight/volume) in a 50% acetone-H2O mixture was found to sufficiently solubilize vitamin E compds. and other lipophilic phenolic antioxidants in 75 mM phosphate buffer (pH 7.4). This newly developed ORAC assay (abbreviated ORACFL-LIPO) was validated through linearity, precision, accuracy, and ruggedness. The validation results demonstrate that the ORACFL-LIPO assay is reliable and robust. For the first time, by using 6-hydroxy-2,5,7,8-tetramethyl-2-carboxylic acid as a standard (1.0), the ORAC values of α-tocopherol, (+)-γ-tocopherol, (+)-δ-tocopherol, α-tocopherol acetate, tocotrienols, 2,6-di-tert-butyl-4-methylphenol, and γ-oryzanol were determined to be 0.5 ± 0.02, 0.74 ± 0.03, 1.36 ± 0.14, 0.00, 0.91 ± 0.04, 0.16 ± 0.01, and 3.00 ± 0.26, resp. The structural information of oxidized α-tocopherol obtained by liquid chromatog./mass spectrometry reveals that the mechanism for the reaction between the vitamin E and the peroxyl radical follows the hydrogen atom transfer mechanism, which is in agreement with the notion that vitamin E is the chain-breaking

antioxidant.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 31 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:935332 CAPLUS
DOCUMENT NUMBER: 136:33335
TITLE: Enhancement of the activity of **carotenoid** biosynthesis inhibitor herbicides by applying them directly to soil with inert solid carrier
INVENTOR(S): Aven, Michael; Brandt, Astrid; Nelgen, Norbert
PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001097613	A2	20011227	WO 2001-EP7109	20010622
WO 2001097613	A3	20020502		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002039968	A1	20020404	US 2001-865023	20010524
US 6894003	B2	20050517		
EP 1292191	A2	20030319	EP 2001-965026	20010622
EP 1292191	B1	20050302		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AT 289751	E	20050315	AT 2001-965026	20010622
PRIORITY APPLN. INFO.:			US 2000-213819P P	20000623
			US 2000-222535P P	20000802
			WO 2001-EP7109 W	20010622

OTHER SOURCE(S): MARPAT 136:33335
AB The efficacy of a herbicidal compound I (Markush included) is increased by applying an effective amount of said herbicidal compound directly to the soil in the form of a solid granule, which contains said herbicidal compound and at least one inert solid carrier. Solid granular compns. of herbicidal compds. I and at least one inert solid carrier are provided, as well as methods for the use of said compns. in the control of weeds.

L23 ANSWER 32 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:833060 CAPLUS
DOCUMENT NUMBER: 135:376741
TITLE: Stable metal ion-lipid powdered pharmaceutical compositions
INVENTOR(S): Dellamary, Luis A.; Riess, Jean; Schutt, Ernest G.; Weers, Jeffry G.; Tarara, Thomas E.
PATENT ASSIGNEE(S): Alliance Pharmaceutical Corp., USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085137	A2	20011115	WO 2001-US14824	20010508
WO 2001085137	A3	20020418		
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6630169	B1	20031007	US 2000-720536	20001222
CA 2408464	AA	20011115	CA 2001-2408464	20010508
EP 1282405	A2	20030212	EP 2001-933194	20010508
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003533449	T2	20031111	JP 2001-581791	20010508
PRIORITY APPLN. INFO.:			US 2000-568818 A	20000510
			WO 1999-US6855 W	19990331
			WO 2001-US14824 W	20010508

AB Microparticle compns. comprising metal ion-lipid complexes for drug delivery are described including methods of making the microparticle compns. and methods of treating certain conditions and disease states by administering the microparticle compns. The metal ion-lipid complexes can be combined with various drugs or active agents for therapeutic administration. The microparticle compns. of the present invention have superior stability to other microparticle compns. resulting in a microparticle composition with longer shelf life and improved dispersibility. The microparticle compns. of the present invention have a transition temperature (Tm) of at least 20° above the recommended storage temperature (Tst) for drug delivery. An aqueous preparation was prepared by mixing two prepns., A and B, immediately prior to spray drying. The preparation A was comprised of a fluorocarbon-in-water emulsion in which 26 g perfluorooctyl bromide was dispersed in 33 g water with the aid of 1.30 g of SPC-3 emulsifier (hydrogenated soy phosphatidylcholine). The preparation B contained 0.162 g CaCl2.2H20 and 0.162 g budesonide dissolved/suspended in 4 g water. The resulting microparticle of the sample had a PL-budesonide-CaCl2.2H20 weight ratio of about 80:10:10. The mean volume aerodynamic particle size of the dry powder was approx. 4.1 μm.

L23 ANSWER 33 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	2001:610975 CAPLUS
DOCUMENT NUMBER:	136:390842
TITLE:	**Carotenoid** incorporation into natural membranes from artificial carriers: liposomes and β- **cyclodextrins**
AUTHOR(S):	Lancrajan, I.; Diehl, H. A.; Socaciu, C.; Engelke, M.; Zorn-Kruppa, M.
CORPORATE SOURCE:	Department of Chemistry and Biochemistry, University of Agricultural Sciences and Veterinary Medicine, Napoca, Cluj, Rom.
SOURCE:	Chemistry and Physics of Lipids (2001), 112(1), 1-10 CODEN: CPLIA4; ISSN: 0009-3084
PUBLISHER:	Elsevier Science Ireland Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB Liposomes and β- **cyclodextrin** (β-CD) have been used as carriers for the incorporation of three dietary **carotenoids** (β- **carotene** (BC), **lutein** (LUT) and canthaxanthin (CTX)) into plasma, mitochondrial, microsomal and nuclear membrane fractions from pig liver cells or the retinal epithelial cell line D407. The uptake dynamics of the **carotenoids** from the carriers to the organelle membranes and their incorporation yield (IY) was followed by incubations at pH 7.4 for up to 3 h. The mean IYs saturated between 0.1 and 0.9 after 10-30 min of incubation, depending on membrane characteristics (cholesterol to phospholipid ratio) and **carotenoid** specificity. Mitochondrial membranes (more fluid) favor the incorporation of BC (non-polar), while plasma membranes (more rigid) facilitate the incorporation of **lutein**, the most polar **carotenoid**. A high susceptibility of BC to degradation in the microsomal suspension was observed by parallel incubations with/without 2,6-di-t-butyl-p-cresol (BHT) as antioxidant additive. The β-CD carrier showed to be more effective for the incorporation of **lutein** while BC was incorporated equally into natural membranes either from liposomes or from **cyclodextrins**. The presence of cytosol in the incubation mixture had no significant effects on the **carotenoid** incorporations.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 34 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	2001:338296 CAPLUS
DOCUMENT NUMBER:	134:325509
TITLE:	Fibrous-liponutritional complexes and compositions containing them

INVENTOR(S): Pistolesi, Elvira; Cestaro, Benvenuto
PATENT ASSIGNEE(S): Hunza Di Maria Carmela Marazzita S.A.S., Italy
SOURCE: PCT Int. Appl., 13 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032038	A1	20010510	WO 2000-EP10500	20001025
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
IT 99MI2263	A1	20010430	IT 1999-MI2263	19991029
IT 2000MI1622	A1	20020118	IT 2000-MI1622	20000718
IT 1318627	B1	20030827		
AU 2001012754	A5	20010514	AU 2001-12754	20001025
EP 1225814	A1	20020731	EP 2000-974454	20001025
EP 1225814	B1	20050427		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003521241	T2	20030715	JP 2001-534254	20001025
AT 293895	E	20050515	AT 2000-974454	20001025

PRIORITY APPLN. INFO.:
IT 1999-MI2263 A 19991029
IT 2000-MI1622 A 20000718
WO 2000-EP10500 W 20001025

AB Fibrous-liponutritional complexes comprising one or more nutritional substances capable of promoting health and therapeutical beneficial activities together with one or more phospholipid component and one or more fibrous polysaccharide component; pharmaceutical formulations and foods containing said fibrous-liponutritional complexes; processes for the preparation of said complexes which are capable of inducing a surprisingly higher increase in the health and therapeutic beneficial activities than that expected for the single nutritional substances used.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 35 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:891116 CAPLUS
DOCUMENT NUMBER: 135:102669
TITLE: Effect of **cyclodextrin**-encapsulated β-**carotene** on progesterone production by bovine luteal cells
AUTHOR(S): Arikan, S.; Rodway, R. G.
CORPORATE SOURCE: Department of Animal Physiology and Nutrition, University of Leeds, Leeds, LS2 9JT, UK
SOURCE: Animal Reproduction Science (2000), 64(3,4), 149-160
CODEN: ANRSDV; ISSN: 0378-4320
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Expts. were conducted to examine the effect of **cyclodextrin** -encapsulated β- **carotene** on basal or cholesterol (**cyclodextrin**-encapsulated), LH and dibutyryl cAMP (dbcAMP)-stimulated progesterone production by bovine corpus luteum cells isolated from mid-luteal heifer ovaries by collagenase digestion. Cells were cultured with serum-free DMEM/Ham's F12 medium in serum pre-treated plastic culture dishes for periods of up to 11 days. Medium was replaced after 24 h and thereafter every 48 h. β- **Carotene** was added to cultures in a carrier mol., dimethyl-β- **cyclodextrin**, to facilitate dissoln. All treatments were started on day 3 of culture. Treatment of cells with 1 or 2 μmol/l β- **carotene** resulted in sharp inhibition of progesterone production On the contrary, treatment of cells with 0.1 μmol/l β- **carotene** resulted in significant stimulation ($P<0.05$) of both basal and cholesterol-stimulated progesterone secretion. The effect of β- **carotene** on LH or dbcAMP-stimulated progesterone production was also examined Treatment of cells with LH or dbcAMP always resulted in stimulation of progesterone

secretion (P<0.001). However, cells treated with LH plus β- **carotene** or dbcAMP plus β- **carotene** both produced significantly (P<0.01) less progesterone relative to those cells treated with LH or dbcAMP alone on days 7, 9 and 11 of culture. These results indicate that β- **carotene** can enhance luteal steroidogenesis when present at low concns. but is inhibitory at higher concns. and that encapsulation of β- **carotene** in **cyclodextrin** is an effective method of supplying it to cells in culture.
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 36 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:878928 CAPLUS
DOCUMENT NUMBER: 134:204135
TITLE: The central cleavage of β,β- **carotene** - a supramolecular mimic of enzymatic catalysis
AUTHOR(S): Woggon, Wolf-D.
CORPORATE SOURCE: Institute of Organic Chemistry, University of Basel, Basel, CH-4056, Switz.
SOURCE: Chimia (2000), 54(10), 564-568
CODEN: CHIMAD; ISSN: 0009-4293
PUBLISHER: Neue Schweizerische Chemische Gesellschaft
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 19 refs. The enzyme β,β- **carotene** 15,15'-dioxygenase which cleaves β,β- **carotene** to retinal (provitamin A) has been identified for the first time in chicken intestinal mucosa and subsequently sequenced and expressed in two different cell lines. To mimic this unusual metabolism a supramol. receptor has been synthesized which binds β,β- **carotene** with Ka = 8.3+106 M-1 and it was shown that the corresponding oxo-ruthenium complex catalyzes the selective cleavage of **carotenoids**.
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 37 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:508196 CAPLUS
DOCUMENT NUMBER: 133:115154
TITLE: Combined dehydroepiandrosterone and retinoid therapy for epithelial disorders
INVENTOR(S): Zeligs, Michael A.
PATENT ASSIGNEE(S): BioResponse, L.L.C., USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6093706	A	20000725	US 1992-845560	19920304
PRIORITY APPLN. INFO.:			US 1992-845560	19920304

AB Compns. and methods are provided for the treatment of oxidative epithelial damage, for inadequate surfactant production in lung disorders, and for disorders of the urinary bladder epithelium. The compns. of the invention comprise dehydroepiandrosterone and vitamin A derivs.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 38 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:335023 CAPLUS
DOCUMENT NUMBER: 132:339428
TITLE: Defined serum-free medical solution for ophthalmology
INVENTOR(S): Skelnik, Debra A.
PATENT ASSIGNEE(S): Bausch and Lomb Surgical, Inc., USA
SOURCE: Eur. Pat. Appl., 27 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1000541	A1	20000517	EP 1999-308702	19991102

EP 1000541	B1	20040114			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
US 6153582	A	20001128	US 1998-186580		19981105
AU 9957108	A1	20000511	AU 1999-57108		19991028
AU 769082	B2	20040115			
JP 2000198701	A2	20000718	JP 1999-313063		19991102
AT 257648	E	20040115	AT 1999-308702		19991102
PT 1000541	T	20040831	PT 1999-308702		19991102
ES 2217700	T3	20041101	ES 1999-308702		19991102
PRIORITY APPLN. INFO.:			US 1998-186580	A	19981105

AB The title solution contains one or more cell nutrient supplements and a growth factor which maintains and enhances the preservation of eye tissues, including human corneal, retinal, and corneal epithelial tissues at low to physiol. temperature (2-38°). This solution is composed of a defined aqueous nutrient and electrolyte solution, supplemented with glycosaminoglycans, deturgescent agents, energy sources, buffer systems, antioxidants, membrane stabilizers, antibiotics, antimycotics, ATP or energy precursors, nutrient cell supplements, nonessential amino acids, trace minerals, trace elements, and growth factors.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 39 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:326526 CAPLUS

TITLE: Chirospecific analysis of norisoprenoid volatiles using chiral GC.

AUTHOR(S): Rouseff, Russell; Winterhalter, Peter

CORPORATE SOURCE: Citrus Research & Education Center, University of Florida, Lake Alfred, FL, 33850, USA

SOURCE: Book of Abstracts, 219th ACS National Meeting, San Francisco, CA, March 26-30, 2000 (2000), AGFD-067. American Chemical Society: Washington, D. C.
CODEN: 69CLAC

DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE: English

AB The tremendous progress in chiropecific anal. in recent years was mainly due to the com. introduction of modified **cyclodextrin** columns. Because of the complexity of natural flavor isolates application of multidimensional gas chromatog. (MDGC) online coupled to mass spectrometry is the method of choice for the accurate determination of the enantiomeric composition of chiral flavor compds. in natural mixts. Apart from authenticity control chirospecific analyses also give an insight into the enantioselectivity of biogenetic pathways. For a series of **carotenoid**-derived aroma compds. the enantiomeric distribution has been reported. An overview of the findings will be presented here.

L23 ANSWER 40 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:311989 CAPLUS

DOCUMENT NUMBER: 133:119568

TITLE: β- **Carotene**-containing preparations enhance antioxidant potential of the liver and myocardium

AUTHOR(S): Tikhaze, A. K.; Konovalova, G. G.; Lankin, V. Z.

CORPORATE SOURCE: Laboratory of Free Radical Processes, A. L. Myasnikov Institute of Cardiology, Ministry of Health of the Russian Federation, Moscow, Russia

SOURCE: Bulletin of Experimental Biology and Medicine (Translation of Byulleten Eksperimental'noi Biologii i Meditsiny) (2000), Volume Date 1999, 128(9), 939-941
CODEN: BEXBAN; ISSN: 0007-4888

PUBLISHER: Consultants Bureau

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effects of β- **carotene**-containing food additives carinate and carinate CD on the antioxidant potential of rat liver and myocardium were examined Daily oral administration of these drugs in doses equal to 0.4 and 14 mg/kg β- **carotene** inhibited ascorbate-dependent peroxidn. of endogenous lipids in hepatocytes and cardiomyocytes 1.5-6.5- and 1.5-40-fold, resp., depending on β- **carotene** form and dose. Carinate CD containing a complex of β- **carotene** with β- **cyclodextrin** was a more potent inhibitor of lipid peroxidn. in the liver and myocardium than carinate containing free β- **carotene**. β- **Carotene**-containing food additives can be recommended for the prophylaxis of cardiovascular, oncol., and other diseases.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 41 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:258588 CAPLUS
DOCUMENT NUMBER: 133:17665
TITLE: A supramolecular enzyme mimic that catalyzes the 15,15' double bond scission of β,β-**carotene**
AUTHOR(S): French, Richard R.; Holzer, Philipp; Leuenberger, Michele G.; Woggon, Wolf-D.
CORPORATE SOURCE: Institut fur Organische Chemie der Universitat Basel, Basel, 4056, Switz.
SOURCE: Angewandte Chemie, International Edition (2000), 39(7), 1267-1269
CODEN: ACIEF5; ISSN: 1433-7851
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:17665
AB The selective cleavage of β,β- **carotene** by a ruthenium-porphyrin β- **cyclodextrin** dimer is described.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 42 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:209679 CAPLUS
DOCUMENT NUMBER: 132:248279
TITLE: Diagnostic agents for pancreatic exocrine function
INVENTOR(S): Kohno, Tadashi; Hosoi, Isaburo; Ohshima, Junko; Shibata, Kunihiko; Ito, Asuka
PATENT ASSIGNEE(S): Tokyo Gas Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 989137	A2	20000329	EP 1999-307554	19990924
EP 989137	A3	20001011		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000159773	A2	20000613	JP 1999-261979	19990916
JP 3669880	B2	20050713		
JP 2000159810	A2	20000613	JP 1999-263300	19990917
NZ 337946	A	20011130	NZ 1999-337946	19990921
NZ 507949	A	20020301	NZ 1999-507949	19990921
AU 9948865	A1	20000330	AU 1999-48865	19990922
AU 755444	B2	20021212		
US 6254851	B1	20010703	US 1999-401739	19990923
CA 2283518	C	20000325	CA 1999-2283518	19990924
CA 2283518	AA	20000325		
CA 2451924	AA	20000325	CA 1999-2451924	19990924
NO 9904685	A	20000327	NO 1999-4685	19990924
EP 1386934	A1	20040204	EP 2003-77521	19990924
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
US 6905668	B1	20050614	US 2000-589419	20000607
AU 769555	B2	20040129	AU 2001-89240	20011105
US 2005019252	A1	20050127	US 2004-926563	20040825
US 2005019253	A1	20050127	US 2004-926564	20040825
US 2005032148	A1	20050210	US 2004-926544	20040825
JP 2006052417	A2	20060223	JP 2005-319212	20051102

PRIORITY APPLN. INFO.:

JP 1998-271252	A	19980925
JP 1998-271253	A	19980925
JP 1999-261979	A	19990916
JP 1999-263300	A	19990917
NZ 1999-337946	A1	19990921
AU 1999-48865	A3	19990922
US 1999-401739	A3	19990923
CA 1999-2283518	A3	19990924
EP 1999-307554	A3	19990924
US 2000-589419	A3	20000607

AB The present invention provides a 13C-labeled oligosaccharide or polysaccharide or a salt thereof excluding U-13C-maltose, 13C-starch, 1-13C-maltotetraose and 1-13C-amylose; a derivative of the 13C-labeled oligosaccharide or polysaccharide or salt thereof; a 13C-labeled inclusion complex or a salt thereof, which comprises a **cyclodextrin** or a modified derivative thereof as a host mol.; a 13C- or 14C-labeled fluorescein ester compound or a salt thereof; and a diagnostic agents for pancreatic exocrine function comprising these compds. 13C- or 14C-labeled. These reagents provide a test, particularly a breath test, which imparts a low stress on subjects and gives the results in a short period of time.

L23 ANSWER 43 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:200845 CAPLUS
DOCUMENT NUMBER: 133:101647
TITLE: **Carotenoid**:methyl-β-**cyclodextrin** formulations: an improved method for supplementation of cultured cells
AUTHOR(S): Pfitzner, I.; Francz, P. I.; Biesalski, H. K.
CORPORATE SOURCE: Department of Biological Chemistry and Nutrition, University of Hohenheim, Hohenheim, D-70593, Germany
SOURCE: Biochimica et Biophysica Acta, General Subjects (2000), 1474(2), 163-168
CODEN: BBGSB3; ISSN: 0304-4165
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A physiol., water-soluble complex of **carotenoids** with methyl-β- **cyclodextrin** (MβCD) was developed for the purpose of cell supplementation. Bioavailability, cytotoxicity and stability of the formulations were compared to **carotenoid** solns. in organic solvents (THF/DMSO (1:1), THF and ethanol). The stability of the different **carotenoid** solns. (0.5 μM) under cell culture conditions was determined by measuring absorbance 1 and 7 days after treatment. To determine the availability of β- **carotene** (BC), human skin fibroblasts were incubated for up to 8 days with 5 uM BC in MβCD or THF/DMSO and the cellular and medium BC contents were determined by HPLC anal. Depending on the solubilizer, different orders of stability were found. MβCD formulation: BC > **zeaxanthin** > **lutein** > lycopene. Organic solvents: **zeaxanthin** > **lutein** > lycopene > BC. Two days after supplementation with 5 μM BC in MβCD, cellular BC levels reached a maximum of 140±11 pmol/μg DNA, leveling off to 100±15 pmol/μg DNA until day 8. Incubation with BC dissolved in THF/DMSO resulted in a lower BC uptake of 105±14 pmol/μg DNA and 64±20 pmol/μg DNA resp. No cytotoxic effects of these formulations were detected. The results show that the MβCD formulation is an improved method for investigations of **carotenoids** and other lipophilic compds. in in vitro test systems compared to methods using organic solvents.
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 44 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:5812 CAPLUS
DOCUMENT NUMBER: 132:307496
TITLE: Stability of β- **carotene** during processing and storage of sterilized milk
AUTHOR(S): Fursova, S. A.; Shatnyuk, L. N.; Risnik, V. V.; Leontieva, E. V.; Biryukova, Z. A.; Kovalenko, L. M.; Panteleeva, O. N.
CORPORATE SOURCE: Inst. Pitan., RAMN, Moscow, Russia
SOURCE: Voprosy Pitaniya (1999), 68(4), 21-23
CODEN: VPITAR; ISSN: 0042-8833
PUBLISHER: Izdatel'stvo Media Sfera
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB An overview is given of the use and stability of β- **carotene** in sterilized milk products, including the use of different forms of β- **carotene** (e.g., a **cyclodextrin** complex and a fat-soluble microbiol. extract), UHT sterilization treatments, ascorbic acid enrichment, and packaging options. Provita sterilized milk with different levels of fat and a β- **carotene** content of 0.25 mg/100 g is emphasized.

L23 ANSWER 45 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:659426 CAPLUS
DOCUMENT NUMBER: 131:283332

TITLE: A metalloporphyrin catalyst that oxidizes steroids and other substrates with catalytic turnover
INVENTOR(S): Breslow, Ronald; Yang, Jerry; Bartolo, Gabriele
PATENT ASSIGNEE(S): The Trustees of Columbia University In the City of New York, USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9951644	A1	19991014	WO 1999-US7758	19990408
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6103892	A	20000815	US 1998-57417	19980408
AU 9935512	A1	19991025	AU 1999-35512	19990408
EP 1084148	A1	20010321	EP 1999-917373	19990408
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1998-57417 A 19980408
WO 1999-US7758 W 19990408
OTHER SOURCE(S): CASREACT 131:283332
AB The present invention provides a β- **cyclodextrin**-containing metalloporphyrin catalyst represented by structure I (R=6-deoxy-6-mercapto-β- **cyclodextrin** attached to the metalloporphyrin via the mercapto group). Synthesis of I was achieved by reaction of 6-deoxy-6-mercapto-β- **cyclodextrin** and 5,10,15,20-tetrakis(pentafluorophenyl)-21H,23H-porphine with K2CO3 (95% yield) followed by reaction with MnCl2. With the stabilized fluorocatalyst, both high conversion and high turnover in selective hydroxylation of an androstanediol derivative can be achieved. As the geometry of such complexes is varied, other selective hydroxylations of interest may be achieved, mimicking the selectivities achieved by the enzymes of the cytochrome P 450 group.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 46 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:481647 CAPLUS
DOCUMENT NUMBER: 131:142179
TITLE: Plant extracts for removal of hazardous substances
INVENTOR(S): Sakata, Shigenobu; Hayashi, Yukiko; Miyake, Shigeo
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11209741	A2	19990803	JP 1998-42746	19980119

PRIORITY APPLN. INFO.: JP 1998-42746 19980119
AB Hazardous and carcinogenic substances such as dioxin are removed with fermentation liquid manufactured from plant material such as evergreen shrub and chems. The chems. comprise sugars such as monosaccharide, vitamin, amino acid, protein, mineral water, and mucopolysaccharide. The fermentation liquid is useful for manufacturing food additive, cosmetic, etc.

L23 ANSWER 47 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:363743 CAPLUS
DOCUMENT NUMBER: 131:59052
TITLE: Letter: ready detection of β- **carotene** from large aggregates of **cyclodextrin** complexes in water solution by laser

desorption/ionization mass spectrometry with and without matrix assistance
AUTHOR(S): Mele, Andrea; Panzeri, Walter; Selva, Antonio; Canu, Emanuele
CORPORATE SOURCE: CNR-Centro di Studio sulle Sostanze Organiche Naturali, Dipartimento di Chimica del Politecnico, Milan, I-20131, Italy
SOURCE: European Mass Spectrometry (1999), 5(1), 7-10
CODEN: EMSPFW; ISSN: 1356-1049
PUBLISHER: IM Publications
DOCUMENT TYPE: Journal
LANGUAGE: English
AB β- **Carotene** forms large aggregates (micelles) with β- and γ- **cyclodextrin** in water. The components of such aggregates can be easily and quickly analyzed by using laser desorption/ionization time-of-flight mass spectrometry (LDI-TOF-MS). The use of a suitable matrix (2,5-dihydroxybenzoic acid, DHB) allows one to detect both **carotene** and **cyclodextrins**, whereas LDI-MS without matrix can be exploited for the selective detection of **carotene**. On this basis, an anal. strategy can be developed for the assessment of the composition of water soluble **carotene/ cyclodextrin** systems and the investigation on the repartition of the components in the presence of organic solvents.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 48 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:717269 CAPLUS
DOCUMENT NUMBER: 130:4824
TITLE: Stabilization and solubilization of lipophilic natural colorants with **cyclodextrins**
AUTHOR(S): Szente, Lajos; Mikuni, Katsuhiko; Hashimoto, Hitoshi; Szejtli, Jozsef
CORPORATE SOURCE: CYCLOLAB Ltd., Budapest, Hung.
SOURCE: Journal of Inclusion Phenomena and Molecular Recognition in Chemistry (1998), 32(1), 81-89
CODEN: JIMCEN; ISSN: 0923-0750
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The paper provides data on the practical utilization of the benefits of the mol. encapsulation of natural colorants by **cyclodextrins**. Exptl. results on the stability of **cyclodextrin** complexed curcumin, curcuma oleoresin, β- **carotene**, and **carotenoid** oleoresins against light, heat, and oxygen prove the benefits of mol. encapsulation of colorants. The parent β- **cyclodextrin** was most effective for the curcumins, while the stability of **carotenoids** was greater with α- **cyclodextrin** complexation. Methylated β- **cyclodextrin** was found to be the most potent solubilizing agent for both **carotenoids** and curcuminoids.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 49 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:700793 CAPLUS
DOCUMENT NUMBER: 130:66694
TITLE: Non-covalent associations of cyclomalto-oligosaccharides (**cyclodextrins**) with trans-β- **carotene** in water: evidence for the formation of large aggregates by light scattering and NMR spectroscopy
AUTHOR(S): Mele, Andrea; Mendichi, Raniero; Selva, Antonio
CORPORATE SOURCE: CNR-Centro di Studio sulle Sostanze Organiche Naturali, Dipartimento di Chimica del Politecnico di Milano, Milan, I-20131, Italy
SOURCE: Carbohydrate Research (1998), 310(4), 261-267
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The preparation of title **cyclodextrin** inclusion complexes with **carotene** is reported. Light scattering and NMR expts. provide evidence for the formation of large aggregates, like micelles, from β- **carotene** complexes with β- and γ- **cyclodextrin** in water. High-resolution NMR spectra of the system

γ- **cyclodextrin**/β- **carotene** in D2O point out guest-induced chemical shift variation of the sugar protons, thus suggesting host-guest interaction in solution
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 50 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:688196 CAPLUS
DOCUMENT NUMBER: 130:114851
TITLE: Study on inclusion complex of β-**cyclodextrin** and β- **carotene**
A00: The factors affecting the main characteristics of β- **carotene** inclusion complex (β-C-IC) in the preparation procedures were investigated.
AUTHOR(S): Liang, Tiantian; Chen, Zhiqun; Hu, Fuqiang; Zhou, Meihua
CORPORATE SOURCE: Zhejiang Pharmaceutical Association, Hangzhou, 310006, Peop. Rep. China
SOURCE: Zhongguo Yaoxue Zazhi (Beijing) (1998), 33(9), 543-545
CODEN: ZYZAEU; ISSN: 1001-2494
PUBLISHER: Zhongguo Yaoxuehui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB β-C-IC was prepared by copptn. and grinding resp. using the β-**cyclodextrin** (β-CD) as a carrier. The effects of preparation techniques and the influence of anti-oxidant on encapsulation rate and yield rate were studied. The DSC patterns of the grinding products were measured with thermal analyzer. The percentage incorporation of β-C was assessed by spectrophotometry. The results showed that β-C mols. could be included into the cavity of β-CD by a grinding precess using DSC. The encapsulation rate and yield were significantly raised by a grinding process and more by adding some anti-oxidant in this procedure. β-C-IC prepared in our laboratory could be expected to apply industry manufacture as a carrier of drug.

L23 ANSWER 51 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:636241 CAPLUS
DOCUMENT NUMBER: 130:3173
TITLE: Preparation and solubility of phosphorylated β-**cyclodextrins**
AUTHOR(S): Lee, Sang-Ah; Lim, Seung-Taik
CORPORATE SOURCE: Graduate Sch. Biotechnol., Center Advanced Food Science Technol., Korea Univ., Seoul, 136-701, S. Korea
SOURCE: Cereal Chemistry (1998), 75(5), 690-694
CODEN: CECHAF; ISSN: 0009-0352
PUBLISHER: American Association of Cereal Chemists
DOCUMENT TYPE: Journal
LANGUAGE: English
AB β- **Cyclodextrin** (CD) was phoshorylated with phosphoryl chloride in aqueous alkaline media at different temps. and pH values. The phosphorylated **cyclodextrin** (PCD) was characterized with respect to phosphorus contents and positions of substitutions as determined by 31P-NMR spectroscopy. Reaction of CD with equimolar POCl3 for 3 h at pH 12 and 45°C yielded a PCD with a phosphorus content of 5.67%. The ratio of mono and diphosphate esters increased when the reaction temperature was raised from 25 to 60°C. The monoesterified phosphate groups were mainly located at C-6 of the anhydroglucose units when the reaction pH was 11 or 12. Reactions at pH 10, however, led to a higher degree of substitutions at C-2 than at C-6. Phosphorylation enhanced the water solubility of CD. Simultaneously, solubility of the PCD in 25% ethanol in water was much greater than unsubstituted CD (22.3 vs. 2.8%). The PCD enhanced the water solubility of nonpolar compds., such as β- **carotene**.
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 52 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:591175 CAPLUS
DOCUMENT NUMBER: 129:260679
TITLE: A synthetic receptor for β,β-**carotene**. Towards an enzyme mimic for central cleavage
AUTHOR(S): French, Richard R.; Wirz, Jakob; Woggon, Wolf-Dietrich
CORPORATE SOURCE: Institut Organische Chemie, Universitaet Basel, Basel, CH-4056, Switz.

SOURCE: Helvetica Chimica Acta (1998), 81(8), 1521-1527
CODEN: HCACAV; ISSN: 0018-019X
PUBLISHER: Verlag Helvetica Chimica Acta AG
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:260679
AB A report on the synthesis of a porphyrin-bridged bis-**cyclodextrin** as a receptor for β,β- **carotene**, and on the binding interaction between these compds., which yields an inclusion complex. The **cyclodextrin** dimer was obtained via condensation of an appropriate 4,4'-(porphyrin-5,15-diyl)bisphenol with 6A-deoxy-6A-iodo-β-**cyclodextrin** in the presence of Cs2CO3. Fluorescence studies of the binding interaction between the dimer and β,β-**carotene** gave a binding constant Ka of 2.4·106 M-1.

L23 ANSWER 53 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:466875 CAPLUS
DOCUMENT NUMBER: 129:199085
TITLE: Oxidative damage induced by the fullerene C60 on photosensitization in rat liver microsomes
AUTHOR(S): Kamat, Jayashree P.; Devasagayam, Thomas P. A.; Priyadarsini, K. I.; Mohan, Hari; Mittal, Jai P.
CORPORATE SOURCE: Cell Biology Division, Bhabha Atomic Research Centre, Mumbai, 400 085, India
SOURCE: Chemico-Biological Interactions (1998), 114(3), 145-159
CODEN: CBINA8; ISSN: 0009-2797
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors have examined the ability of a commonly used fullerene, C60, to induce oxidative damage on photosensitization using rat liver microsomes as model membranes. When C60 was incorporated into rat liver microsomes in the form of its **cyclodextrin** complex and exposed to UV or visible light, it induced significant oxidative damage in terms of lipid peroxidn. as assayed by thiobarbituric acid reactive substances (TBARS), lipid hydroperoxides and conjugated dienes, and damage to proteins as assessed by protein carbonyls and loss of the membrane-bound enzymes. The oxidative damage induced was both time- and concentration-dependent. C60 plus light-induced lipid peroxidn. was significantly inhibited by the quenchers of singlet oxygen (1O2), β- **carotene** and sodium azide, and deuteration of the buffer-enhanced peroxidn. These observations indicate that C60 is an efficient inducer of peroxidn. and is predominantly due to 1O2. Biol. antioxidants such as glutathione, ascorbic acid and α-tocopherol significantly differ in their ability to inhibit peroxidn. induced by C60. The authors' studies, hence, indicate that C60, on photosensitization, can induce significant lipid peroxidn. and other forms of oxidative damage in biol. membranes and that this phenomenon can be greatly modulated by endogenous antioxidants and scavengers of reactive oxygen species.
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 54 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:580666 CAPLUS
DOCUMENT NUMBER: 127:181148
TITLE: Liquid compositions for adrenal cortex function promotion and infection prevention
INVENTOR(S): Sakata, Shigenobu; Tatsumi, Jiro; Fukai, Masaru
PATENT ASSIGNEE(S): Handa, Shigenobu, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09176029	A2	19970708	JP 1995-354770	19951226
PRIORITY APPLN. INFO.:			JP 1995-354770	19951226

AB Liquid compns. for adrenal cortex function promotion and infection prevention comprise Tilia exts. and substances selected from e.g. iron ammonium citrate, salicylic acid and citric acid. The compns. also can be incorporated into cosmetics or foods.

L23 ANSWER 55 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:366870 CAPLUS
DOCUMENT NUMBER: 127:50818
TITLE: A study by mass spectrometry on the volatility of trans-β- **carotene** after complexation with β- **cyclodextrin** in water
AUTHOR(S): Mele, Andrea; Selva, Antonio
CORPORATE SOURCE: CNR-Centro Studio Sostanze Organiche Naturali, Dip. Chimica Politecnico, Milan, I-20131, Italy
SOURCE: European Mass Spectrometry (1997), 3(2), 161-163
CODEN: EMSPFW; ISSN: 1356-1049
PUBLISHER: IM Publications
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Volatility of the 1:1 inclusion complex of β- **carotene** and β- **cyclodextrin** was studied by mass spectrometry. The vaporization temperature of free β- **carotene** was in the range of 170-210° as compared to 210-240° for the complex.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 56 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:275188 CAPLUS
DOCUMENT NUMBER: 126:342682
TITLE: Composition and functional properties of cholesterol reduced egg yolk
AUTHOR(S): Awad, A. C.; Bennink, M. R.; Smith, D. M.
CORPORATE SOURCE: Department of Food Science and Human Nutrition, Michigan State University, East Lansing, MI, 48824-1224, USA
SOURCE: Poultry Science (1997), 76(4), 649-653
CODEN: POSCAL; ISSN: 0032-5791
PUBLISHER: Poultry Science Association, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The composition and functional properties of cholesterol reduced egg yolk (CREY) were compared to those of control egg yolk (EY). The CREY was prepared by absorbing cholesterol with β- **cyclodextrin** after dilution and dissociation of granules at pH 10.5. The CREY contained less lipid and protein and more carbohydrate and ash than EY. Egg lipids were fractionated into triglycerides, cholesterol esters, free cholesterol, phosphatidyl choline, and phosphatidyl ethanolamine. Free and esterified cholesterol in CREY were reduced by 91.6 and 94.4%, resp. Triglycerides were the major lipid class in CREY. The CREY contained more oleic acid and less linoleic acid than the control. Protein solubility in 0.1 and 0.6 M NaCl and sponge cake volume did not differ. The composition of proteins soluble in 0.6 M NaCl in both egg prepns. were similar as determined by SDS-polyacrylamide gel electrophoresis. The electrophoretic profiles of proteins soluble in 0.1 M NaCl were similar, except that lipovitellin from EY was insol. under these conditions. The CREY was less yellow than EY, as indicated by β- **carotene** concns. and Hunter b values. Thus, β- **cyclodextrin** can be used to produce a low cholesterol egg product with compositional and functional properties similar to EY.

L23 ANSWER 57 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:121431 CAPLUS
DOCUMENT NUMBER: 126:135663
TITLE: Process for preparing encapsulated water soluble β- **carotene**
INVENTOR(S): Fortier, Nancy Elaine
PATENT ASSIGNEE(S): Procter and Gamble Co., USA
SOURCE: PCT Int. Appl., 8 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9640262	A2	19961219	WO 1996-US6981	19960516
WO 9640262	A3	19970522		

W: BR, CA, JP, MX
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
PRIORITY APPLN. INFO.: US 1995-485328 A 19950607
AB A process for preparing a powdered water soluble β- **carotene** is

disclosed. The **carotenoid** composition is prepared by combining an aqueous solution of **cyclodextrin** or derivatized **cyclodextrins**, and a solution of β- **carotene**, β- **carotene** derivs. or mixts. thereof, dissolved in an organic solvent. The β- **carotene** solution is added to the **cyclodextrin** solution with stirring for a time sufficient to remove the organic solvent. Excess β- **carotene** is removed and the remaining solution is evaporated to dryness. Hydroxypropyl β- **cyclodextrin**, acetone, and α-tocopherol were used according to above procedure to obtain a water soluble β- **carotene**.

L23 ANSWER 58 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:718316 CAPLUS
DOCUMENT NUMBER: 125:339053
TITLE: Preparation of polyanionic **cyclodextrin** compounds having cellular growth modulating activity
INVENTOR(S): Joullie, Madeleine; Weisz, Paul B.; Zhang, Zhonga
PATENT ASSIGNEE(S): University of Pennsylvania, USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9631220	A1	19961010	WO 1996-US4573	19960403
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
US 5760015	A	19980602	US 1995-416107	19950403
AU 9656628	A1	19961023	AU 1996-56628	19960403
AU 692389	B2	19980604		
EP 824352	A1	19980225	EP 1996-913777	19960403
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11514388	T2	19991207	JP 1996-530457	19960403
NO 9704572	A	19971202	NO 1997-4572	19971002

PRIORITY APPLN. INFO.:

US 1995-416107	A	19950403
US 1988-145407	B2	19880119
US 1989-295638	B1	19890110
US 1989-434659	A2	19891109
US 1990-480407	A2	19900215
US 1991-691168	B1	19910424
US 1991-790592	B1	19911112
US 1992-900592	B1	19920618
US 1994-345011	A2	19941123
WO 1996-US4573	W	19960403

AB Preparation of polyanionic, substituted **cyclodextrin** (CDs) having cellular growth modulating activity are disclosed. The invention further provides CDs having anionic groups on one side of the CD mol. To a solution of 2.03 g of heptakis(6-octanesulfide-6-deoxy)-beta **cyclodextrin** (preparation given) in 700 mL pyridine was added 6.36 g of sulfur trioxide pyridine complex and stirred at 100° for 18 h. Pyridine was evaporated to precipitate a solid, which was separated and purified to obtain heptakis(6-octanesulfide-6-deoxy)-beta **cyclodextrin** polysulfate (I). The ID50 of I for the inhibition of proliferation of human umbilical vein smooth muscle cells was 0.1-1.0 mg/mL.

L23 ANSWER 59 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:438000 CAPLUS
DOCUMENT NUMBER: 125:96112
TITLE: Decolorized **carotenoid-cyclodextrin** complexes
INVENTOR(S): Schwartz, Joel L.; Shklar, Gerald; Sikorski, Christopher
PATENT ASSIGNEE(S): Nutritech, Inc., USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9614850	A1	19960523	WO 1995-US14055	19951103
W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
WO 9513047	A1	19950518	WO 1994-US13050	19941114
W: CA				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9540174	A1	19960606	AU 1995-40174	19951103
PRIORITY APPLN. INFO.:			US 1994-339018 A	19941114
			WO 1994-US13050 A	19941114
			US 1993-152214 A	19931112
			WO 1995-US14055 W	19951103

AB Complexes of β- **carotene** with **cyclodextrin** are described, having reduced color intensity and a shift of color to tones more neutral than the deep red of uncomplexed β- **carotene**. When these complexes are added to topical compns. such as typical skin cream bases in amts. of 1.0 % weight/volume β- **carotene**, the result is a cream having a pinkish to beige color which is cosmetically acceptable, as opposed to the mustard orange to red color seen in creams containing like amts. of uncomplexes γ- **carotene**. β- **Carotene**-β- **cyclodextrin** complex (1:1) was prepared and used in com. available creams (e.g. Ponds cream, Noxzema).

L23 ANSWER 60 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:184209 CAPLUS
DOCUMENT NUMBER: 124:230169
TITLE: Preservation of young rice plant
INVENTOR(S): Okii, Mitsuyoshi
PATENT ASSIGNEE(S): Naasarii Tekunorojii Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08009811	A2	19960116	JP 1994-152457	19940704
PRIORITY APPLN. INFO.:			JP 1994-152457	19940704

AB Rice young plant or seedling is preserved in a inorg. salt-containing medium having an osmotic pressure of 5-120 mOSMOL/kg. The preservation medium further contains inhibitors such as ancymidol to extension growth of the young plant. The preserved rice young can be further grown to mature plant by the addition of growth promoting materials such as 1,6-diaminehexane.

L23 ANSWER 61 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:71430 CAPLUS
DOCUMENT NUMBER: 124:155977
TITLE: **Cyclodextrin** complexation
INVENTOR(S): Loftsson, Thorsteinn
PATENT ASSIGNEE(S): Cyclops h.f., Iceland
SOURCE: U.S., 31 pp. Cont.-in-part of U.S. 5,324,718.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5472954	A	19951205	US 1994-240510	19940511
US 5324718	A	19940628	US 1992-912853	19920714
EP 579435	A1	19940119	EP 1993-305280	19930706
EP 579435	B1	19990317		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
PRIORITY APPLN. INFO.:			US 1992-912853 A2	19920714

EP 1993-305280 A 19930706

AB The invention provides a method for enhancing the complexation of a **cyclodextrin** with a lipophilic and/or water-labile active ingredient which is a drug, cosmetic additive, food additive or agrochem., comprising combining from about 0.1 to about 70% (weight/volume) of a **cyclodextrin**, from about 0.001 to about 5% (weight/volume) of a pharmacol. inactive water-soluble polymer acceptable for use in a pharmaceutical, cosmetic, food or agricultural composition, and said lipophilic and/or water-labile active ingredient in an aqueous medium, the polymer and **cyclodextrin** being dissolved in the aqueous medium before the active ingredient is added, the aqueous medium which comprises the polymer and **cyclodextrin** being maintained at 30-150° for 0.1-100 h before, during and/or after the active ingredient is added, optionally followed by removal of water. Related methods, co-complexes of active ingredient/**cyclodextrin**/polymer, pharmaceutical, cosmetic, food and agricultural compns. and **cyclodextrin**/polymer complexing agents are also provided.

L23 ANSWER 62 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:58484 CAPLUS
DOCUMENT NUMBER: 124:197646
TITLE: **Cyclodextrins**: a new tool for the controlled lipid depletion of thylakoid membranes
AUTHOR(S): Rawyler, A.; Siegenthaler, P. A.
CORPORATE SOURCE: Neuchatel, 7, Switz.
SOURCE: Biochimica et Biophysica Acta, Biomembranes (1996), 1278(1), 89-97
CODEN: BBBMBS; ISSN: 0005-2736
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Cyclodextrins** (CDs) have been used in a controlled lipid depletion of thylakoid membranes avoiding the use of either detergents or lipolytic enzymes. Spinach thylakoid membranes were first treated with different CDs under various conditions. After removal of the CDs by washing, the amts. of mono- and digalactosyldiacylglycerol (MGDG and DGDG), sulfoquinovosyldiacylglycerol (SQDG) and phosphatidylglycerol (PG), protein, pigment and plastoquinone remaining in the membranes were determined The main results, obtained with α-CD and heptakis-(2,6-di-O-methyl)-β-CD (DM-β-CD), were as follows. (1) Acyl lipids were removed from thylakoid membranes by both CDs (DM-β-CD being more efficient than α-CD); the extent of removal depended on both CD and chlorophyll concns. (2) α-CD presented a higher selectivity towards lipid classes than did DM-β-CD, but in both cases the removal order was SQDG>PG>MGDG>DGDG. (3) α-CD showed a preference for those lipids containing saturated 16-carbon acyl chains whereas DM-β-CD was essentially insensitive to the fatty acid composition of the lipids. (4) The protein, chlorophyll and **carotenoid** contents of thylakoids were not affected by CD treatments. (5) Plastoquinones were removable but in small amts. only and with a low efficiency (DM-β-CD>α-CD). (6) For all lipid classes, the extent of lipid removal was higher at 0° than at 20°. (7) The presence of MgCl2 reduced the removal of PG and SQDG but did not affect galactolipid depletion levels. (8) Stable lipid depletion levels in thylakoid membranes were reached after 5-10 min of CD treatment at 0°. (9) Of the four CDs tested, only three (α-CD, β-CD, and DM-β-CD) promoted lipid depletion whereas one (hydroxypropyl-β-CD) failed completely to do so. It is concluded that CD-mediated lipid removal provides a valuable and versatile tool to achieve controlled and specific lipid depletions in biol. membranes. A few examples of the consequences of a CD-induced lipid depletion on fluorescence and electron transport properties of thylakoids are given to show the usefulness of CDs in the investigation of structure-function relationships in photosynthetic membranes.

L23 ANSWER 63 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:991490 CAPLUS
DOCUMENT NUMBER: 124:111105
TITLE: C60-sensitized, singlet oxygen-induced lipid peroxidation in rat liver microsomes
AUTHOR(S): Priyadarsini, K. I.; Mohan, H.; Mittal, J. P.; Kamat, J. P.; Devasagayam, T. P. A.
CORPORATE SOURCE: Chem. Group, Bhabha Atomic Res. Cent., Bombay, 400085, India
SOURCE: Proceedings - Electrochemical Society (1995), 95-10(Proceedings of the Symposium on Recent Advances in the Chemistry and Physics of Fullerenes and Related

Materials, 1995), 468-84
CODEN: PESODO; ISSN: 0161-6374
PUBLISHER: Electrochemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To examine the biol. effects of C60 we have assessed the membrane damage induced using rat liver microsomes as model systems. A suitable derivative, in the form of γ- **cyclodextrin** complex was incorporated into microsomes during ultracentrifugation. For photoexcitation, the microsomes were exposed to light source from low pressure mercury lamp. The resulting oxidative damage, in terms of lipid peroxidn., was assayed by three parameters, namely thiobarbituric acid reactive substances, lipid hydroperoxides and conjugated dienes. A significant increase in peroxidn. was observed in microsomes containing C60. Peroxidn. induced was both time- and concentration-dependent, and was accompanied by loss of membrane-bound enzymes. Since peroxidn. was significantly inhibited by the singlet oxygen quenchers β- **carotene** and sodium azide, it is reasonable to presume that major part of the peroxidn. is due to singlet oxygen.

L23 ANSWER 64 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:843506 CAPLUS
DOCUMENT NUMBER: 123:350044
TITLE: Novel liposome based systems for the protection of photolabile drugs
AUTHOR(S): Loukas, Yannis L.; Gregoriadis, Gregory
CORPORATE SOURCE: School Pharmacy, University London, London, WC1N 1AX, UK
SOURCE: Proceedings of the International Symposium on Controlled Release of Bioactive Materials (1995), 22nd, 438-9
CODEN: PCRMEY; ISSN: 1022-0178
PUBLISHER: Controlled Release Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Photolabile agents may be protected from UV light by incorporating them (as such or in the form of **cyclodextrin** complexes) into a liposome-based multicomponent system. This functions through a series of barriers to light and the presence of an antioxidant, all assembled within the bilayer structure which, by itself, also appears to absorb light.

L23 ANSWER 65 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:735652 CAPLUS
DOCUMENT NUMBER: 123:122762
TITLE: Decolorized **carotenoid-cyclodextrin** complexes
INVENTOR(S): Schwartz, Joel L.; Shklar, Gerald; Sikorski, Christopher
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9513047	A1	19950518	WO 1994-US13050		19941114
W: CA					
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
WO 9614850	A1	19960523	WO 1995-US14055		19951103
W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK					
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
AU 9540174	A1	19960606	AU 1995-40174		19951103
PRIORITY APPLN. INFO.:			US 1993-152214	A	19931112
			US 1994-339018	A	19941114
			WO 1994-US13050	A	19941114
			WO 1995-US14055	W	19951103

AB Complexes of β- **carotene** with **cyclodextrin** are described, having reduced color intensity and a shift of color to tones more neutral than the deep red uncomplexed β- **carotene**.

When these complexes are added to topical compns. such as typical skin cream bases in amts. up to 1.0% weight/volume β- **carotene**, the result is a cream having a pinkish to beige color which is cosmetically acceptable, as opposed to the mustard orange to red color in creams containing like amts. of uncomplexed β- **carotene**. For example, β- **carotene** in methylene chloride was treated with an aqueous solution of β- **cyclodextrin** to give a complex, which was mixed with a cream base.

L23 ANSWER 66 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:588123 CAPLUS
DOCUMENT NUMBER: 123:286425
TITLE: Detection of the inclusion complexes of β- **carotene** with **cyclodextrins** by electrospray mass spectrometry
AUTHOR(S): Selva, Antonio; Mele, Andrea; Vago, Giorgio
CORPORATE SOURCE: Dipartimento di Chimica del Politecnico, CNR-Centro di Studio sulle Sostanze Organiche Naturali, Milan, I-20131, Italy
SOURCE: European Mass Spectrometry (1995), 1(2), 215-16
CODEN: EMSPEW; ISSN: 1356-1049
PUBLISHER: IM Publications
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Inclusion reaction of β- **carotene** with β- and γ- **cyclodextrin** was detected by electrospray mass spectrometry.

L23 ANSWER 67 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:478413 CAPLUS
DOCUMENT NUMBER: 122:212592
TITLE: Solubilization of **carotenoid** pigments
INVENTOR(S): Nosaka, Nobuyoshi; Myano, Nobuo; Asano, Mikinori
PATENT ASSIGNEE(S): Taishoo Tekunosu Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07023736	A2	19950127	JP 1993-209841	19930630
PRIORITY APPLN. INFO.:			JP 1993-209841	19930630

AB **Carotenoid** pigments utilized in foods are solubilized by **cyclodextrins** which do not produce insol. materials at neutral pH. **Carotenoid** pigments are solubilized at alkaline pH and mixed with **cyclodextrins** and the pH is brought back to neutral pH.

L23 ANSWER 68 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:248449 CAPLUS
DOCUMENT NUMBER: 122:30239
TITLE: Crocetin-containing coloring.
INVENTOR(S): Tanaka, Takemi; Okemoto, Hisashi; Kuwahara, Nobuhiro
PATENT ASSIGNEE(S): Ensuiko Sugar Refining Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 612815	A1	19940831	EP 1993-118965	19931125
EP 612815	B1	19980930		
R: DE, FR, GB				
JP 06248193	A2	19940906	JP 1993-59422	19930225
US 5424407	A	19950613	US 1993-156810	19931122
CA 2112277	AA	19940826	CA 1993-2112277	19931223
PRIORITY APPLN. INFO.:			JP 1993-59422 A	19930225

AB A stabilized crocetin-containing colorant has as an effective component crocetin included by **cyclodextrin**. The colorant is obtained by adding an aqueous alkali solution of crocetin to pasty **cyclodextrin** and stirring the resultant mixture Crocetin included by **cyclodextrin** is resistant against light and various chems. and may be added to food

products as a stable coloring matter. Thus, a juice base was made by adding citric acid, malic acid, and lemon juice to sugar, adding NaHCO3 solution, and adjusting the pH to 7.0. Water was added to juice base in which was dissolved crocetin or crocetin-α- **cyclodextrin** inclusion complex, the mixts. were prepared so that absorbance at 420 nm was 0.5 and then were poured into glass containers, and the containers were sealed and allowed to stand for 1 mo in a sunny place. The degree of fading was 80% for the mixture with crocetin and only 30% for the mixture with crocetin-α- **cyclodextrin** inclusion complex.

L23 ANSWER 69 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:13452 CAPLUS
DOCUMENT NUMBER: 122:4734
TITLE: Solubilization of fatty acids and similar lipids by methylated **cyclodextrins**
AUTHOR(S): Szente, L.; Szejtli, J.; Kato, L.
CORPORATE SOURCE: CYCLOLAB, Cyclodextrin Res. and Dev. Lab. Ltd., Budapest, 1026, Hung.
SOURCE: Minutes Int. Symp. Cyclodextrins, 6th (1992), 340-4. Editor(s): Hedges, Allan R. Ed. Sante: Paris, Fr. CODEN: 60BCAL
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Naturally occurring lipids were transformed into water soluble forms by using chemical modified **cyclodextrins** as solubilizers. DIMEB (2,6-dimethyl-βCD), randomly methylated βCD(RAMEB) and HPBCD (2-hydroxypropyl-BCD) were compared as solubility enhancers. DIMEB and RAMEB were the most potent solubilizers for fatty acids and other studied natural lipophiles. Solid complexes were prepared via freeze-drying with an average lipid content of 2 to 5%. By dissolving these formulations clear, stable aqueous solns. are obtained. The real mol. dispersity of the fatty acids in this form was probably responsible for the very promising results obtained in the first successful in vitro cultivation of leprosy bacilli using soluble palmitic acid complexes. This findings may open a new way in the chemotherapy of leprosy.

L23 ANSWER 70 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:430536 CAPLUS
DOCUMENT NUMBER: 121:30536
TITLE: water-soluble inclusion complexes of fatty acids or their alkali metal salts with methylated **cyclodextrins**.
INVENTOR(S): Szejtli, Jozsef; Szente, Lajos; Kato, Laszlo
PATENT ASSIGNEE(S): Cyclolab Kft., Hung.
SOURCE: Hung. Teljes, 11 pp. CODEN: HUXXBU
DOCUMENT TYPE: Patent
LANGUAGE: Hungarian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
HU 63447	A2	19930830	HU 1992-567	19920221
HU 209658	B	19941028		
PRIORITY APPLN. INFO.:			HU 1992-567	19920221

AB The title complexes are prepared with methylated α-, β- or γ- **cyclodextrins**, preferably β- **cyclodextrin** containing 13-15 Me groups. The method is especially suitable in solubilizing palmitic acid for Mycobacterium leprae culture media.

L23 ANSWER 71 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:407844 CAPLUS
DOCUMENT NUMBER: 121:7844
TITLE: Colorless β- **carotene** preparations and manufacture of the preparations
INVENTOR(S): Murao, Tadahisa; Maruyama, Tetsuhiko; Takahashi, Yasuyuki; Komatsu, Yoshinori; Yamamoto, Yoshiro
PATENT ASSIGNEE(S): Meiji Milk Prod Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp. CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06025156	A2	19940201	JP 1991-78235	19910319
PRIORITY APPLN. INFO.:			JP 1991-78235	19910319

AB Colorless β- **carotene** (I) prepns., useful for foods, beverages, pharmaceuticals, cosmetics, etc., are manufactured by inclusion of I with **cyclodextrin**, and addition of dyes having complementary color of the inclusion compds. **Cyclodextrin** powder (containing .apprx.30% α- **cyclodextrin**) (400 g), H2O, and 800 mg I were mixed to give an inclusion compound, which was mixed with a bluish green food dye to give a colorless composition

L23 ANSWER 72 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:8059 CAPLUS
DOCUMENT NUMBER: 120:8059
TITLE: Applications of matrix-assisted techniques in plasma desorption mass spectrometry
AUTHOR(S): Tuszynski, Wilfried
CORPORATE SOURCE: Dep. Phys. Mol. Biophys., Carl von Ossietzky-Univ., Oldenburg, W-2900, Germany
SOURCE: International Journal of Mass Spectrometry and Ion Processes (1993), 126, 151-6
CODEN: IJMPDN; ISSN: 0168-1176
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Analyte-analyte interactions between adsorbates on nitrocellulose are studied. The suitability of 3-aminopyridine as a matrix for carbohydrates is shown. The detection of neg. C60 ions from a femtomole sample is made possible by matrix assistance.

L23 ANSWER 73 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:602254 CAPLUS
DOCUMENT NUMBER: 119:202254
TITLE: Cosmetic beverages preparation from chlorella extract
INVENTOR(S): Tanaka, Yoshiho
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05184340	A2	19930727	JP 1992-21599	19920113
PRIORITY APPLN. INFO.:			JP 1992-21599	19920113

AB The cosmetic beverages are prepared from chlorella hot water extract 30-50 mL, β- **carotene** 0.25-40, donariera algae enclosed in **cyclodextrin**, and cosmetic aide such as raffinose.

L23 ANSWER 74 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:229393 CAPLUS
DOCUMENT NUMBER: 118:229393
TITLE: Analysis of **carotenoids** by high-performance liquid chromatography and supercritical fluid chromatography
AUTHOR(S): Lesellier, E.; Tchapla, A.; Marty, C.; Lebert, A.
CORPORATE SOURCE: Letiam, IUT Orsay, Plateau du Moulon, B.P. 127, Orsay, 91403, Fr.
SOURCE: Journal of Chromatography (1993), 633(1-2), 9-23
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 98 refs. The 1st part describes the chemical structures and importance of **carotenoids** for health. Sample preparation for extracting **carotenoids** from fruits and vegetable matrixes is detailed in terms of pre-extraction treatment (enzyme inactivation, addition of antioxidants and acid neutralizers), extraction conditions with solvents or supercrit. fluids and saponification In the 2nd part, HPLC and SFC separation methods are described. The efficiencies of different inorg. packings (silica, magnesium oxide, calcium hydroxide, alumina), bonded silica packings (cyano, octadecyl), and chiral phases (cellulose, **cyclodextrins**) are discussed. The choice of an appropriate method depending on the type of pigment to be separated (xanthophylls, **carotenes**, cis-trans isomers) is discussed. The effects of the mobile phase (specific

interactions, H bonding) and of the stationary phase (nature and type of linkage: monofunctional or polyfunctional, end-capping of residual silanols) on the solute retention are reported and explained on the basis of the differences between the chemical structures of the pigments.

L23 ANSWER 75 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:132137 CAPLUS
DOCUMENT NUMBER: 118:132137
TITLE: Apocarotenal or lycopene complexes with a **cyclodextrin**
INVENTOR(S): Leuenberger, Bruno; Stoller, Hansjoerg
PATENT ASSIGNEE(S): Hoffmann-La Roche, F., und Co. A.-G., Switz.
SOURCE: Eur. Pat. Appl., 5 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 501267	A1	19920902	EP 1992-102587	19920217
EP 501267	B1	19980415		
R: AT, BE, CH, DE, DK, FR, GB, IT, LI, NL				
US 5221735	A	19930622	US 1992-837292	19920214
AT 165012	E	19980515	AT 1992-102587	19920217
JP 07165801	A2	19950627	JP 1992-69885	19920219
JP 3162465	B2	20010425		
PRIORITY APPLN. INFO.:			CH 1991-556 A	19910225

AB Inclusion complexes of polyenes such as apocarotenal and lycopene with **cyclodextrins** (α- **cyclodextrin** hydroxypropyl β- **cyclodextrin**) are prepared, and the complexes are soluble in water, alc. or mixts. of water-alc. Thus, 5.0 g α- **cyclodextrin** was dissolved in 40 mL water and to this solution was added a solution of 0.3 g lycopene in 4 mL CHCl3. This suspension was heated at 60° and stirred for 20 min, CHCl3 removed and cooled to give a solid which contained 2 μg lycopene/mL.

L23 ANSWER 76 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:7320 CAPLUS
DOCUMENT NUMBER: 118:7320
TITLE: Preparation of **cyclodextrin** inclusion compounds containing β- **carotene** as food dyes and antioxidants
INVENTOR(S): Murao, Tadahisa; Maruyama, Tetsuhiko; Yamamoto, Yoshiro
PATENT ASSIGNEE(S): Meiji Milk Products Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04244059	A2	19920901	JP 1991-87168	19910128
PRIORITY APPLN. INFO.:			JP 1991-87168	19910128

AB The title compds., useful as food dyes and antioxidants (no data), which show orange or red color and low saturation with dispersing in liquid-phase, are prepared by high-speed stirring **cyclodextrin** solns. containing α- **cyclodextrin** (I) with oily β- **carotene** (II). An aqueous solution of **cyclodextrins** containing I was stirred with II with high speed to give **cyclodextrin** inclusion compds., which showed good red or orange color and low saturation in H2O.

L23 ANSWER 77 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:632735 CAPLUS
DOCUMENT NUMBER: 117:232735
TITLE: Preparation of stable **carotenoid** pigments
INVENTOR(S): Nakao, Masahiro; Fukui, Yuko; Fujikawa, Shigeaki
PATENT ASSIGNEE(S): Suntory, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04153271	A2	19920526	JP 1990-275284	19901016
JP 2993724	B2	19991227		

PRIORITY APPLN. INFO.: JP 1990-275284 19901016

AB Preparation of stable **carotenoid** pigments by coupling **carotenoids** with sugars in the presence of a sugar transferase is described. The yellow **carotenoid** pigments are stable in light or acidic environment. A yellow pigment was prepared by reacting Cape jasmine yellow with dextrin in the presence of **cyclodextrin** glucanotransferase and its stability was demonstrated.

L23 ANSWER 78 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:458222 CAPLUS
DOCUMENT NUMBER: 117:58222
TITLE: Second harmonic generation in mixed **carotenoid** -fatty acid and **carotenoid**-**cyclodextrin** Langmuir-Blodgett films
AUTHOR(S): Dentan, V.; Blanchard-Desce, M.; Palacin, S.; Ledoux, I.; Barraud, A.; Lehn, J. M.; Zyss, J.
CORPORATE SOURCE: Cent. Natl. Etud. Telecommun., Bagneux, 92220, Fr.
SOURCE: Thin Solid Films (1992), 210-211(1-2), 221-3
CODEN: THSFAP; ISSN: 0040-6090
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The second harmonic generation properties of noncentrosym. Langmuir-Blodgett films built from mixts. of push-pull **carotenoids** and ω-tricosenoic acid or amphiphilic **cyclodextrin** are reported. The effects of the **carotenoid** as well as of the diluent on the orientational order have been studied both in monolayers and alternate active-passive multilayers.

L23 ANSWER 79 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:241988 CAPLUS
DOCUMENT NUMBER: 116:241988
TITLE: Skin cosmetics containing liposomes comprising a light-degradable phosphatidylcholine
INVENTOR(S): Hashimoto, Akira; Kusumi, Akihiro; Yamaguchi, Kazuo
PATENT ASSIGNEE(S): Sunstar, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04029915	A2	19920131	JP 1990-136530	19900524

PRIORITY APPLN. INFO.: JP 1990-136530 19900524

AB Skin cosmetics contain light-degradable liposomes comprising 2-O2NC6H4CH2O2C(CH2)10CO2CH2CH[O2C(CH2)10CO2CH2C6H4NO2-2]CH2OP(O)(O-)O(CH2)2NMe3+(I). 1,10-Decanedicarboxylic acid (II) was refluxed with SOCl2 for 3 h to give 77% II dichloride, which was treated with 2-nitrobenzyl alc. and Et3N in THF at room temperature for 11 h to give 15% II mono-2-nitrobenzyl ester. This was stirred with sn-glycero-3-phosphocholine-CdCl2 complex, DCCD, and 4-dimethylaminopyridine in CHCl3 at room temperature under dark for 4 days to give 82% I. A CHCl3 solution containing I was charged in a test tube, dried, mixed with a buffer containing vitamin C at 50° for 10 min, treated with hypersonic waves, and subjected to gel permeation chromatog. to give liposomes, which were irradiated by UV-light for 5 min to release 100% vitamin C. A lotion containing the liposomes (containing vitamin C) was formulated.

L23 ANSWER 80 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:530922 CAPLUS
DOCUMENT NUMBER: 113:130922
TITLE: Stabilization of **carotenoid** pigments in foods with flavonol glycosides and antioxidants
INVENTOR(S): Nishimura, Masato; Washino, Ken; Moriwaki, Masamitsu
PATENT ASSIGNEE(S): San-Ei Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02135070	A2	19900523	JP 1988-289643	19881115

PRIORITY APPLN. INFO.: JP 1988-289643 19881115

AB **Carotenoid** pigments in foods are stabilized with readily water-soluble flavonol glycosides and water-soluble antioxidants. Rutin was converted into quercetin 3-O-monoglucosamide with hydrolase and the glucoside was treated with **cyclodextrin** glucanotransferase and dextrin at 50° for 40 h to give readily water-soluble flavonol glucoside. Syrup was mixed with 0.3% β- **carotene** emulsion 0.001, the flavonol glucoside 5x10-5, and gallic acid 5x10-5 weight part and the mixture was irradiated with UV for 24 h to result in 65.0% residual pigment.

L23 ANSWER 81 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:213251 CAPLUS
DOCUMENT NUMBER: 112:213251
TITLE: Separation of **carotenes** on **cyclodextrin**-bonded phases
AUTHOR(S): Stalcup, Apryll M.; Jin, Heng L.; Armstrong, Daniel W.; Mazur, Paul; Derguini, Fadila; Nakanishi, Koji
CORPORATE SOURCE: Dep. Chem., Univ. Missouri, Rolla, MO, 65401, USA
SOURCE: Journal of Chromatography (1990), 499, 627-35
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The separation of **carotenoids** and retinoids on a β-**cyclodextrin**-bonded stationary phase with conventional mobile phases is reported. Compds. studied include β- **carotene** (all-trans), 15,15'-cis-β- **carotene**, 7,8,7',8'-dihydro-β- **carotene**, α- **carotene**, lycopene, **lutein**, **zeaxanthin**, retinal, retinol, retinol palmitate, and retinol acetate. The best resolution of **carotenes** was obtained with low concns. (≤1%) of polar solvents (e.g., 2-propanol or Et acetate) in hexane or cyclohexane. Xanthophylls required much higher concns. of polar solvents. The best solvent for the resolution of **lutein** and **zeaxanthin** was found to be dichloromethane. The resolution of cis/trans-isomers and the tentative identification of other isomers present in newly synthesized **carotenoid** stds. is also reported. All trans-isomers were found to be eluted before cis-isomers.

L23 ANSWER 82 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:510847 CAPLUS
DOCUMENT NUMBER: 109:110847
TITLE: Preparation of **cyclodextrin** inclusion compounds containing β- **carotene** as materials for drug, food and cosmetics
INVENTOR(S): Hasebe, Kohei; Ando, Yutaka; Chikamatsu, Yoshihiro; Hayashi, Kiyoko
PATENT ASSIGNEE(S): Ichimaru Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62267261	A2	19871119	JP 1986-110162	19860514

PRIORITY APPLN. INFO.: JP 1986-110162 19860514

AB The title compds., useful as materials for drug, food, and cosmetics, were prepared A mixture of β- **carotene** and α-**cyclodextrin** was dissolved in H2O at 80°. The resulting inclusion compound precipitated at room temperature and was collected by filtration.

L23 ANSWER 83 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:533706 CAPLUS
DOCUMENT NUMBER: 107:133706
TITLE: Micro-organizational control of photochemical oxidations. XV. Rose bengal and derivatives

AUTHOR(S): Neckers, D. C.; Paczkowski, Jerzy
CORPORATE SOURCE: Cent. Photochem. Sci., Bowling Green State Univ., Bowling Green, OH, 43403, USA
SOURCE: Tetrahedron (1986), 42(17), 4671-83
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 107:133706

AB Rose bengal derivs. of β- **cyclodextrin** artificially enhance the concentration of both chemical traps and phys. quenchers of singlet oxygen by including the non-polar traps in the hydrophobic central sphere of the β- **cyclodextrin** and on direct proximity to the source. These microorganized systems are characterized by quenching rates greater than that expected for singlet oxygen thermally diffusing to the quenching sphere of the quencher. Microorganizational effects are illustrated with the specific phys. quencher β- **carotene** and the chemical quencher, anthracene.

L23 ANSWER 84 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:99232 CAPLUS
DOCUMENT NUMBER: 104:99232
TITLE: Microheterogeneous photooxidation
AUTHOR(S): Neckers, D. C.; Paczkowski, Jerzy
CORPORATE SOURCE: Dep. Chem., Bowling Green State Univ., Bowling Green, OH, 43403, USA
SOURCE: Journal of the American Chemical Society (1986), 108(2), 291-2
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A microheterogeneous photooxidn. is defined as a photosensitized oxidation reaction whose efficiency is enhanced beyond that of diffusion control by the covalent bonding of a sensitizer to a ligand. The ligand is responsible for enhancing the local concentration of a specific substrate susceptible to reaction with an excited state derived from the proximate sensitizer. Several applications are shown of microheterogeneous photooxidn. in single O processes.

L23 ANSWER 85 OF 85 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1982:198163 CAPLUS
DOCUMENT NUMBER: 96:198163
TITLE: Solubility improvement of **carotenoid** food colors
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57003861	A2	19820109	JP 1980-79217	19800611
PRIORITY APPLN. INFO.:			JP 1980-79217 A	19800611

AB The solubility of **carotenoids** for food coloring is markedly improved with gum arabic [9000-01-5] and, optionally, **cyclodextrin** [12619-70-4].